Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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LECTURE I.—PART V.

ON A GREAT VARIETY OF FORMS OF PARALYSIS DUE TO DISEASE IN ONE SIDE OF THE BRAIN.

Small lesion of the pons Varolii on one side producing paralysis extending gradually to all parts of the body—Small lesion of one crus cerebri producing successively paralysis of the four limbs—Hemiplegia may occur twice in the same side of the body, seemingly caused by successive lesions in the two sides of the brain—Hemiplegia or the paralysis of a limb may appear in consequence of a lesion located in any part of the brain.

As I shall have, when speaking of paralysis in its relations with disease in each of the important parts of the brain, to mention cases in which there has been loss of voluntary movement, at first in one side, then in the other side, I will not now give other cases of that kind, and will only say that the very same parts of the base of the brain—i. e., the surface of the crura cerebri, the crura cerebelli, the pons Varolii and the medulla oblongata—which are most able to bear disease without producing paralysis, are also among those which most frequently will give rise to a paralysis on the side of the lesion, or to paralysis on the two sides of the body, even when the lesion is extremely small and limited to a part of one half of those nervous centres. Sometimes in those cases paralysis will proceed very slowly, as was seen by Bretonneau* in a patient who, after having been for a time paralysed of one finger only (in the *left* hand), gradually lost voluntary movement in the whole body, the only lesion found being an inflammation of a very small part of the *right* side of the pons Varolii. Sometimes also the paralysis will strike the four limbs, but only one at a time, as was seen by Mr. G. W. Callender† in a patient who was at first paralysed of the *right* hand, and in whom there was successively, with an interval of a few days, paralysis of the *left* arm, then of the *right* leg, and at last of the *left* leg, the lesions being apparently limited to very small parts of one half of the brain, chiefly the surface of the *left* crus cerebri, the spinal cord appearing healthy. I pass now to another argument.

3. *Hemiplegia may appear twice in the same side of the body, seemingly caused by successive lesions in the two sides of the brain.*—Although the number of such cases is very small, I believe that this proposition is sufficiently well supported. In a remarkable case published by Dr. Albi‡ the patient had two attacks of *right* hemiplegia, and when he died nothing was found to explain the first attack except a small cavity, evidently the trace of an old hæmorrhage, in the left posterior lobe. The second attack of *right* hemiplegia occurred from a large hæmorrhage in the middle part of the *right* hemisphere. In that case, therefore, there was at first the ordinary crossed hemiplegia, and afterwards a direct hemiplegia. The symptoms in both attacks had been those of hæmorrhage in the brain.

In an interesting case of Mr. Squire's,§ two old marks of hæmorrhage were found—one in the left, the other in the right, anterior lobe of the brain—in a patient who died in a fit of epilepsy, and who had had two attacks of left hemiplegia, one of them with loss of speech; these attacks, judging by the time of their occurrence, having been caused by the effusion of blood in the two anterior lobes.

If the arguments I have given in another lecture* to show that we cannot explain the appearance of paralysis on the side of a brain-lesion by a supposed lack of decussation of the anterior pyramids were not—as I believe they are—quite decisive, we should have in such facts as those just mentioned a very strong reason to consider that a direct paralysis must depend on something else than the non-existence of that decussation. This is evident, as, if dependent on such an anomaly, a crossed paralysis in the same patient who afterwards had a direct paralysis could not have occurred, as it did occur, in the cases I have given.

4. *Hemiplegia, or the paralysis of one limb, may appear in consequence of a lesion located in any part of the brain.* One of the most powerful arguments against the admitted views on the mode of production of paralysis in organic diseases of the brain comes out of this fact, that not only every part of the supposed motor tract, or of the so-called psycho-motor centres, but also every other part of the encephalon, can give rise to hemiplegia or to the paralysis of a limb. Still more the *typical* form of hemiplegia—consisting in a slight paralysis of the tongue and of a few facial muscles, with a somewhat greater paralysis of the leg, and a much greater one of the arm on the same side—this common kind of hemiplegia may also be caused by disease in the most various parts of the brain. It is clear that if paralysis depended on the loss of function of the part of the intra-cranial nervous centre where we detect disease, we should not find this same peculiar kind of paralysis appearing from disease anywhere, whether in the anterior or the posterior lobes, in the optic thalamus or the corpus striatum. I will return to this most important feature of my demonstration of the untenability of the admitted views when I discuss the question of pathogeny of paralysis in the last of the lectures I intend delivering here. I will insist then on the radical impossibility of reconciling with the received views the facts we daily observe of production of what I call the *typical*† cerebral hemiplegia from disease in so many distinct parts of the brain. I only wish at present to show the possibility, nay, the frequency, of apparition of paralysis of one limb, or of hemiplegia, from disease elsewhere than in those parts considered as conductors or centres for voluntary movements.

Among the parts which are considered as not belonging to the motor tract or to the psycho-motor centres, there are some in the base of the brain whose vicinity to those which are supposed to belong to the voluntary motor apparatus is so great that it is natural to suppose that diseases in them affect the neighbouring parts, and in that way cause paralysis. There is no doubt, for instance, that a hæmorrhage in the optic thalamus can exert a pressure on the corpus striatum, and that if a paralysis occurs then, it may be looked upon as resulting from pressure on this last-named organ. But there are a great many cases in which a lesion—either a small hæmorrhage or some other alteration—cannot have produced much pressure on the surrounding parts, or no pressure at all, and in which, however, paralysis of one or two limbs occurred, and often persisted. I ought to say, besides, that, as I will show in another lecture, all the parts I will name as having given rise to paralysis are very often diseased without causing a paralysis, and the pressure on other parts supposed to be the cause of paralysis when this symptom exists is very frequently considerable indeed, and still unable to cause paralysis.

As cases of disease of the optic thalamus are very much more frequent than cases of disease of other parts of the brain not considered as belonging to the voluntary motor apparatus, I will first speak of paralysis caused by lesion of that most interesting cerebral ganglion‡. Before mention-

* Quoted by Velpeau in Revue Médicale, Paris, 1826, vol. ii., p. 265.
† St. Bartholomew's Hospital Reports, vol. v., 1869, p. 11.
‡ Bulletins de la Société Anatomique, 1851, p. 252.
§ Transactions of the Pathological Society, London, 1856, vol. vii., p. 125.

* See THE LANCET, January 29th, 1876, p. 180.

† I call this form of paralysis *typical* because it is the ordinary or common form of hemiplegia from brain disease after a patient has recovered from the shock of a sudden attack of cerebral hæmorrhage or softening. It is *typical* because it characterises more frequently than any other form a paralysis from brain disease.

‡ The optic thalamus is certainly a remarkable organ. Like the trigeminal nerve, it possesses frequently the power of producing alterations of the various senses, especially the sight; it may affect general sensibility either way: increasing it morbidly, like an injury to the posterior columns of the spinal cord, or decreasing it like an alteration of the central grey matter of the cord. It has a very great inhibitory power over the reflex faculty of the medulla oblongata and of the spinal cord. It affects nutrition by a peculiar influence, and it certainly acts as much as the pons Varolii and the medulla oblongata on the vaso-motor nervous system.

ing facts, I will say that both Cruveilhier* and Dr. J. Hughlings Jackson† have stated that lesions of the optic thalamus produce paralysis just as well as lesions of the corpus striatum. In some statistics given by Finck‡ there were 22 cases of paralysis in 63 cases of disease of the optic thalami, and 39 cases of paralysis in 77 cases of lesion of the corpora striata. I will now give some cases, beginning with one of Dr. Murdoch.§

CASE 8.—Sudden attack of vertigo and complete paralysis of face and limbs on the left side. No appearance of anæsthesia. A few days after acute pains in the paralysed limbs. Death twenty-two days after the attack. The tissue of the brain is firm, excepting the right optic thalamus, which is reduced into a pulp, coffee-and-cream colour, containing two small tuberculous masses the size of a pea. Corpora striata and other parts of brain healthy.

In this case it seems clear that the complete paralysis was produced by the lesion of the optic thalamus. Out of many other cases of disease limited to the optic thalamus, and in which there was little or no pressure on the corpus striatum, with more or less complete hemiplegia, I will mention the following. A case of Montault's,‖ in which an incomplete left hemiplegia, with anæsthesia of the left arm, was apparently caused by a softening of the anterior part of the right optic thalamus, the corpus striatum being normal. A case of Professor Vulpian's,¶ in which a hæmorrhage, which cannot have been considerable, took place in the left optic thalamus. The autopsy, two years after the attack, showed that blood had occupied one-third of the length of that nervous centre; the rest of the brain was healthy. There was at first complete right hemiplegia, followed by choreic movements. A case of Dr. R. Bright's,** in which there was at first a hæmorrhage in the left optic thalamus, and afterwards an inflammatory softening, but no alteration in other parts of the brain. There was persistent right hemiplegia. A case of Morgagni's,†† in which the external side of the left optic thalamus was softened, almost liquefied. The patient had complete right hemiplegia. A case of Maisonneuve's,‡‡ and another of Bailly's,§§ in which a tubercle the size of a walnut occupied the centre of the left optic thalamus. There was, in both patients, hemiplegia of the face, tongue, and limbs on the right side. A case of Dr. Elliotson's,‖‖ in which there was only a very small effusion of blood (size of finger-nail) in the posterior part of the right optic thalamus. There was hemiplegia of face and limbs on the left side. A case of Dr. Dechambre's,¶¶ in which the left optic thalamus was softened, and contained, in a greyish areolar tissue, a chalk-like fluid. There was paralysis of the right limbs, complete for a time, and afterwards incomplete, but lasting till death.

It would be easy to swell this list of cases considerably, but I believe that the facts I have mentioned are quite sufficient, inasmuch as when I treat of the differences between the various parts of the brain, as regards the power of giving rise to paralysis in the different parts of the body, I will have to mention at least a few more cases of hemiplegia from lesions of the optic thalamus.

A remarkable feature of many of the cases of disease of the optic thalamus is that the paralysis produced by that lesion was *complete*. Certainly it ought not to have been so, even when there was some pressure on the neighbouring parts, and only a *diminution* should have existed in the transmission of the orders of the will to muscles. The completeness of paralysis is evidently in absolute opposition to the admitted views on the mode of production of paralysis.

Before showing that other parts of the brain, not belonging to the voluntary motor apparatus, can give rise to paralysis, I ought to say that exactly as is the case for the excitability of various parts of the brain—excitability which we know to be very much greater in some regions than in others—we find that certain parts are by far more able to produce paralysis than others. There is no question that a lesion of the corpus striatum will more often produce paralysis than lesions of the cerebellum, the corpus callosum, or the centrum ovale, but the significance that might be given to this difference by persons strongly attached to the old views vanishes when we find, on the one hand, that parts supposed to belong to the motor tract, which easily give rise to paralysis, may be destroyed without any loss of voluntary movement; and, on the other hand, that the parts which do not belong to the voluntary motor apparatus sometimes produce paralysis.

Of the various parts of the brain in this last category, there is one which deserves all our attention: it is the posterior lobe. Cases abound of disease of any kind in the posterior parts of the brain in which paralysis was produced, and with the various features that we see when that symptom is caused by disease of the cerebral ganglia or of the convolutions of the brain which are considered as psycho-motor centres.

The posterior lobes of the brain have been the subject of a good deal of speculation during the last ten years. Living localisers have tried to show that they are not, as had been imagined by their predecessors (Saucerotte, Serres, and others), centres for the movements of the arms, and that they are the seat of the intellectual faculties and of the perception of sensations. I will in another lecture discuss the views of Betz, of Meynert, and of Prof. Carpenter, on these various points. I will now simply show that if we were to pay attention only to a number of facts, neglecting altogether crowds of others, we might attribute a great variety of functions to the posterior lobes, and we could also declare that they have no special function. As I do not forget that my principal purpose is now to show that, although not considered as motor centres, the posterior lobes can give rise to paralysis, I will first mention cases showing that that affection can be brought on by any kind of lesion in those parts. The power of the posterior lobes in that respect is greater than that of the anterior lobes, although these last parts are supposed to contain psycho-motor centres (along Rolando's fissure).

In one of the most interesting cases of paralysis caused by disease of one of the posterior lobes—a case put on record by Cadet de Gassicourt,* the right posterior lobe was reduced to a pulp (*en bouillie*). There was loss of voluntary movements and sensibility in the limbs and trunk on the left side. There was also great obtuseness of intelligence. If we were to draw conclusions from this fact alone, we would say that the right posterior lobe is a centre for intelligence, a centre for the perception of sensations coming from the left side of the body, and also a psycho-motor centre for the left limbs and the left side of the trunk. But if we take another case of softening of the same (the right) posterior lobe, such as one published by Dr. Levick,† we find that, although the alteration was considerable, there was no symptom but rigidity of the left arm. In many other cases of softening there was hemiplegia either on the opposite side (Durand-Fardel, Charcot, Martin-Solon, Rostan, Ramon, Bravais, and Guiaud‡,) or on the side corresponding§ to that of the lesion.

Tumours and abscesses, like softening, have often caused paralysis when located in the posterior lobe. I have already mentioned two cases of Mr. Callender, one in which the paralysis appeared first on the same side, the other in which it first came on the opposite side. In a case deserving study on account of the gradual apparition of paralysis after attacks of tetanic spasms of the right arm, Andral‖ found complete right hemiplegia, without alteration of sensibility or intelligence. There was a large tumour between the left posterior lobe and the cerebellum.

Cases of inflammation of the posterior lobes, with or without abscesses, and producing either a paralysis of the arm or hemiplegia, are very numerous. Gintrac¶ says that this symptom is very frequent, and he gives six cases of paralysis of one arm and seven of hemiplegia due to inflammation of one posterior lobe. I have collected as many more cases, and I can say that in about two-thirds of the

* Dictionnaire de Médecine et de Chirurgie Pratiques, vol. iii., p. 236.
† Reynolds's System of Medicine, second edition, vol. ii., p. 540.
‡ Quoted by Piguë in Bulletins de la Société Anatom., vol. xii., 1837, p. 17.
§ Journal Universel et Hebdomad. de Médecine, etc., vol. i., 1830, p. 365.
‖ Journal Univ. et Hebdomad. de Médecine, vol. ii., 1831, p. 300.
¶ In the interesting thesis of my former assistant, Dr. R. Lépine: De la Localisation dans les Maladies Cérébrales, Paris, 1875, p. 91.
** Reports of Medical Cases, vol. ii., p. 305-6. See also Case, p. 202.
†† De Sedibus et Causis Morborum, epist. v., No. 6.
‡‡ Bulletins de la Société Anatomique, 1835, p. 39.
§§ Bulletins, just quoted, 1855, p. 192.
‖‖ THE LANCET, vol. i., 1831-32, p. 729.
¶¶ Gazette Médicale de Paris, 1838, p. 306.

* Bulletins de la Société Anatomique, vol. xxx., 1855, pp. 35 and 171.
† The American Journal of the Medical Sciences, October, 1869, p. 406.
‡ Quoted by Gintrac, loc. cit. 1871, vol. ix., p. 349.
§ Dechambre in Gazette Médicale de Paris, 1835, p. 555, and Rostan in Traité du Ramollissement du Cerveau, second edition, p. 31.
‖ Clinique Médicale, fourth edition, vol. v., p. 6.
¶ Loc. cit., vol. viii., 1869, p. 290.

cases of inflammation of one posterior lobe there is paralysis, a proportion which is greater than that of cases of paralysis when the anterior lobe is the seat of an inflammation.

Pretty much the same thing may be said of a hæmorrhage in a posterior lobe. Even when an effusion of blood is small and limited to the parts round the centre of that region of the brain, paralysis may appear and last.

I know that a distinction is made by some localisers who recognise that paralysis may appear in cases of disease of parts which do not belong to the voluntary motor apparatus. They say that in such cases the loss of movement is only temporary, while it is persistent and even permanent when the lesion is in a part of that apparatus. I will show in another lecture that this difference as regards the duration of paralysis, although existing frequently, is far from being constant, and that in cases of disease of the parts supposed not to be used in voluntary movements, paralysis may persist for months and for years, while it may more or less rapidly disappear in cases of disease of the voluntary motor track, or of the so-called psycho-motor centres. Among many cases of long duration of paralysis, when the lesion is in one posterior lobe, I will select as a proof of persistence of that symptom a remarkable case of Rostan's.* A woman, who died at the age of sixty, had had for fifty-nine years a paralysis of the right arm. The autopsy showed a considerable atrophy of the left posterior lobe. In a case of Calmeil's† left hemiplegia lasted as long as the patient lived after a hæmorrhage in the right posterior lobe—i.e., two years.

The very interesting researches of an ingenious physiologist, Dr. David Ferrier‡, in showing that the posterior lobes of the brain can be galvanised without any appearance of motor effect, do not prove more than this—that the galvanic current is not excitant of the cells and fibres of that part. They do not show that the posterior lobe is not excitable under other kinds of stimulation. I have ascertained, on the contrary, that both the posterior and the middle lobes are more excitable under the stimulation of a great heat than is the anterior lobe, a paralysis of muscles, sometimes in one part, sometimes in another, occurring immediately when the surface of one posterior lobe is irritated by a white-hot cautery. But disease is more powerful, and not only will it often produce paralysis, but, as I will show more fully in another lecture, it will produce convulsive movements either on the side where it exists,§ or on the opposite side,‖ or on both sides.¶ Catalepsy has also sometimes been caused by a lesion of the posterior lobe.** In a very interesting case of my distinguished friend, Professor J. B. S. Jackson, of Boston, U.S.,†† a large abscess in the left posterior lobe had caused no symptom but attacks of general tremulousness.

* Traité du Ramollissement du Cerveau. Second Edition, p. 256.

† Traité des Maladies Inflammatoires du Cerveau, vol. ii., p. 149.

‡ The West Riding Lunatic Asylum Medical Reports, vol. iii., 1873, p. 30.

§ See a case of Nivet's, in Bulletins de la Société Anatomique, 1836, vol. xi., p. 70. There was capillary apoplexy, and softening of the right posterior lobe, with left hemiplegia and convulsions on the right side. See also a case of Dérranges, in which both paralysis and convulsions existed in the limbs on the side of the lesion in the posterior lobe: Journal de Médecine de Bordeaux, 1841, p. 164.

‖ See a case of Pajot's, in Gazette des Hôpitaux, 1842, p. 430; quoted by Gintrac, loc. cit., vol. viii., p. 235. There were convulsions and paralysis of the face and right limbs, caused by two abscesses in the left posterior lobe.

¶ See a remarkable case of yellow softening and induration of the left posterior lobe, with no other symptoms than epilepsy,—case published by Hébréart in Annuaire Medico-Chirurgical des Hôpitaux, Paris, 1819, p. 586.

** Martin Solon, quoted by Lallemand, in Recherches sur l'Encéphale, vol. i., p. 168.

†† See Descriptive Catalogue of the Warren Anatomical Museum, No. 1874, p. 382.

STATISTICAL SOCIETY.—The following is the title of the essay to which the Howard medal will be awarded in November, 1877. The essays to be sent in on or before June 30th, 1877:—"On the Condition and Management—past and present—of the Workhouses and similar Pauper Institutions in England and Wales, and their effect on the Health, Intelligence, and Morals of the Inmates." Further particulars or explanations may be obtained from the assistant secretary, at the rooms of the Statistical Society, Somerset House-terrace (King's College entrance), Strand, London, W.C.

Clinical Lecture
ON
CERTAIN RARE FORMS OF SOLID ŒDEMA OF THE LEGS.

Delivered at the London Hospital,

BY JONATHAN HUTCHINSON, F.R.C.S.,
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GENTLEMEN,—In connexion with several cases which have recently been under our observation, I wish to-day to ask your attention to the different causes of œdema of the legs. Under many circumstances œdema of these parts is connected with a tendency to effusion into the cellular tissue generally, with implication, perhaps, of the great serous cavities also. In most of these it is indicative either of a central impediment to the circulation in the form of heart disease, or of deficient action on the part of the kidneys. There are many other cases, however, in which the swelling of the legs is due to a cause more or less distinctly local, and there are others in which local and general causes each take their share in the result. It becomes of importance, then, and of much interest, to discriminate in each individual case as to the special cause which is at work; and before introducing to you the individual cases, I will attempt an enumeration of the principal groups into which we may classify them.

First let us note the obvious fact that in the lower extremities the venous circulation is at some difficulty, and that if any influence be at work in the body tending to produce transudation of serum from the bloodvessels it will probably show itself first in the feet and legs. Thus it may be convenient to mention, as the first group, cases in which slight passive dropsy occurs in connexion with mere debility. This is common enough, and especially so in the aged and in those whose occupations compel them to remain for long periods standing. Although often unattended by any discoverable disease either in heart or kidneys, its occurrence of course always suggests an examination of those organs.

In the second group we may place cases in which the œdema is due to positive impediment in the heart. In these it will almost always be confined at first to the feet and legs, and it will be purely passive—that is, unattended by any inflammatory induration of the parts affected.

In the third group œdema from disease of the kidneys may be placed; and of these cases we may remark that not unfrequently from the first there is swelling of other parts—the eyelids, backs of hands, &c.,—and very frequently dropsy of the serous cavities.

Of the three forms of œdema just mentioned, it may be said that they are almost always symmetrical and of nearly equal severity in the two limbs. Those which are to follow, however, do not observe this rule, and although any one of them may affect both legs, it is far more common in most of them to observe the symptom on one side only. This onesidedness, of course, attracts our attention to a local cause.

In the fourth group we may include all cases in which the œdema is due to mechanical obstacle to the return of venous blood. The commonest example of this class is in the instance of pregnant women in whom the weight of the uterus, pressing upon the iliac veins of one or both sides, very frequently causes what we may suitably call venous œdema of one or both legs. Ovarian tumours, or any other kind of tumour in the abdomen, may produce similar results. And let me here remark that it is by no means certain that the swelling in these cases will wholly disappear when the cause is removed; for not very unfrequently we observe cases in which repeated pregnancies have at length induced a condition of permanent dilatation of the veins with swelling of the feet. The risk of the œdema becoming permanent is, however, far less than in certain cases which I shall have to mention presently in which local inflammation occupies the chief place as a cause.

In the fifth group we will place all cases in which there

is actual disease of the venous trunks. In cases of phlebitis of the main vein of the limb you have seen the extremity become suddenly much swollen and œdematous, and in such cases the œdema will always be, both as regards its extent and its permanence, in relation with its cause. In plugging of superficial veins, we rarely observe any great amount of œdema, and the same remark is true of the numerous cases in which the superficial veins become entirely disabled by varicose dilatation. In these cases the deeper trunks are efficient to carry on the circulation. In connexion with this group I must mention the disease known as *phlegmasia dolens*, which has by many been associated, and perhaps correctly in some cases, with venous occlusion. I find it difficult, however, to believe that plugging of veins is the usual cause of this affection; for, if it were, the deep veins would often be obliterated, and the result would be compensatory enlargement of the superficial ones. The phenomena of phlegmasia dolens are far more like those of lymphatic than venous obstruction, and it ought probably to be included in our next group.

The sixth group shall include those cases in which the œdema is wholly or chiefly due to lymphatic obstruction. So little has as yet been made out as to the pathology of the lymphatic system, and so few are our opportunities of post-mortem examination in this direction, that we are obliged to be somewhat less certain in our statements regarding this group than in any other. I do not think, however, that I shall run any risk of misleading you if I ask you to believe that the lymphatic system often takes a large and chief share in the production of œdema, and that it is quite possible for long tracts of the lymphatic tubes to be occluded by inflammatory thickening. I shall have to mention presently one very instructive case in which a whole network of lymphatic trunks in an indurated and cord-like condition could be very easily felt under the skin. In the majority of cases, however, the diagnosis of lymphatic obstruction is conjectural only, and depends to a considerable extent upon the absence of any other satisfactory explanation of the symptoms. In lymphatic cases the disease is almost always non-symmetrical. We may note also, as a curious fact, that very commonly no enlargement of the lymphatic *glands* occurs. I should be inclined to suspect this cause in any case in which the œdema was strictly local and abruptly limited, there being no evidence of disease of the veins or of mechanical pressure. I should consider my diagnosis confirmed if the œdema cleared off without leaving any dilatation of superficial veins, and during the progress of the case I should repeatedly and carefully examine the limb in order to ascertain if any little lines like whip-cord could be felt under it. It is very difficult in many cases to separate solid œdema consequent on obstructed lymphatics from chronic inflammation of the cellular tissue, and in point of fact it is exceedingly probable that the two conditions usually complicate each other. Indeed, it is not unlikely that primary disease of the lymphatics is extremely rare, and that almost always it is secondary to inflammation of the skin and subcutaneous tissues. Modern research has shown that the lymphatic radicles terminate in the areolar interspaces. Hence the facility with which the lymphatic system becomes involved in all forms of inflammation of the skin allied to the erysipelatous.

My last group—the seventh—shall comprise all cases in which the œdema is the result of local inflammation; and these arrange themselves under three heads—those in which the inflammation is allied to erysipelas, those in which it takes the form of elephantiasis, and those in which thrombosis of venous capillaries, or true purpuric ecchymosis, occurs. The last of these is one of but little importance, and I shall not again advert to it; but the other two are of much interest, and it is with them that I shall be chiefly concerned in the rest of my lecture.

The term "elephantiasis" is now definitely understood to be restricted to those cases of which the common Barbadoes leg is an exaggerated type. It is the *Elephantiasis Arabum*, the *Bouenemia* of Mr. Erasmus Wilson, and the *Scleriasis* of some continental writers. It has nothing whatever to do with true leprosy, to which unfortunately the term *Elephantiasis Græcorum* was formerly applied. Now in all cases to which the term elephantiasis is applicable there is œdema and something more; there is also overgrowth. And here we establish the line of demarcation between elephantiasis and all other varieties of persistent œdema. Prove that the tissues have become hypertrophied, that they are not only sodden with serum, but that they are overgrown, and you prove the right of the malady to the title of elephantoid. It has hitherto been the custom to use this name only in application to the most exaggerated examples of the disease. Nothing can be more injurious to our correct appreciation of the processes of disease than this unfortunate habit. Size ought never to be made a basis for classification; and between the conditions of chronic thickening of skin, with solid œdema and papillary growth, which are not at all uncommon in our out-patient rooms, and the most hideous example of Barbadoes leg which you could find in the West Indian Islands, there is no distinction excepting that of degree; the pathological process is precisely the same in both. The same remark applies to the cases of inflammatory hypertrophy of the labia, which are not uncommon in English practice. In hot countries two forms of elephantiasis are recognised, but they are not wholly distinct, and I believe that not unfrequently one precedes the other. I allude to the tuberculated and the smooth varieties. In the smooth there is much less evidence of growth than there is in the tuberculated, or rather perhaps we ought to say there is less evidence of papillary growth. In the one the skin becomes warty and nodular; in the other, although much indurated, it remains smooth. The tuberculated form rarely affects both legs, whilst the smooth frequently does so. I am told that in India it is usual to consider the smooth form as associated with constitutional disease, and as indicating the necessity for change of residence and the use of quinine; whilst the tuberculated is more purely local. In English practice we meet also with the two varieties. In most cases the tuberculated form of elephantiasis takes its origin from some local injury or local source of inflammation: an ulcer on the leg; an attack of eczema; or, on the genitals, venereal sores may be its starting-point. The smooth form, however, begins usually without such cause, and is often set up by a form of inflammation somewhat resembling erysipelas. To this stage the name *Barbadoes rose* has been given. It differs from the common forms of erysipelas in having no abrupt margin and in being unattended by vesications, and, further, in the fact that the fluid effused shows no tendency to reabsorption. The attack is, however, distinctly inflammatory, and it is very probable that inflammation of the lymphatics takes a considerable share in its results. We have in both forms of elephantiasis a very interesting illustration of the results of overfeeding of tissues. Inflammatory disturbance of nutrition is the starting-point. The tissues are flooded with serum, and, owing to their dependent position (scrotum, labium, or leg), this serum has difficulty as to its reabsorption. The cells of the part, already in a state of excitement, feed on it, and irregular modes of growth are the result. You might obtain a somewhat parallel phenomenon, if to any given village unlimited supplies of meat and beer were weekly consigned for gratuitous distribution.

I think I have now said enough to place you in a position to appreciate the cases which I have to relate. I shall not trouble you with any examples of the more common forms of dropsy—these being, indeed, of medical rather than of surgical interest,—but shall restrict myself to those of the more unusual forms, preferring such as afford some clue to the nature of the malady.

In the following case we have an instance of immense solid œdema of the whole lower extremity up to the very hip, occurring in a syphilitic patient, as a sequel to a slight bruise of the foot.

On June 28th, 1871, I saw with Mr. Cornelius Garman, of Bow, a very curious case of unsymmetrical persistent œdema. Our patient was a thin, nervous woman, aged about forty-two, the wife of a sea captain. Her left leg, from the pelvis downwards, was enormously swollen, the skin being smooth and brawny. About the foot there were patches of congestion, but in the thigh, where the swelling was as conspicuous as in the leg, the skin was quite pale. The thigh measured five inches more in girth than its fellow, and she assured me that a year ago it had been for a time very much larger than at present. The toes and lowest part of the foot were not swollen in proportion with the rest of the member, the œdema beginning about the instep, and increasing up the left thigh. There was not a trace of œdema in the other leg. Mrs. B—— told us that

it had followed from a slight bruise on the instep from a fender. She pointed out to us the exact place of the bruise, and said that inflammation and swelling of the foot followed almost directly after it, although there was no abrasion, and had never been any wound. It was now eighteen months since this slight accident, and although the leg had at times improved it had never returned to its former size. Mrs. B—— complained much of severe aching pain in various parts of the limb; she had never observed any lines of inflamed lymphatics, nor had the inguinal glands ever enlarged. She had repeatedly been obliged to remain in bed for a few days at a time when the swelling was greater than usual, but she would not admit that she had ever derived more than very temporary benefit from the recumbent posture, and asserted that on the whole the limb was better when she walked about. I was told by Mr. Garman that he believed she was accustomed to drink spirits, and that seven years ago he had attended her for constitutional syphilis, some scars of which (rupia) he showed me. Of late years she had not had any symptoms referable to syphilis, and had, indeed, enjoyed good health.

In December, 1872, Mr. Garman was kind enough, in answer to an inquiry, to inform me of the progress of the case. We had determined on a course of iodide of potassium internally, and the local use of an evaporating lead lotion, insisting also on as much rest in bed as possible. The iodide had made her sick, and had been replaced by small doses of mercury, and under these the leg so much improved that it returned to almost its natural size. After remaining well for some months, a relapse occurred, and great swelling was again produced. The patient, at the date of Mr. Garman's letter, was on a voyage to Australia.

In 1873 Mrs. B—— was again brought to me by Mr. Garman, this time on account of a deep syphilitic ulcer on her left arm. Of this she soon got well under the use of iodide and mercurials. Her leg still remained larger than the other, and liable to temporary increase of œdema.

The next case which I shall relate to you is in many respects similar to the preceding one, but it has some features of yet greater interest. We have the same history of constitutional syphilis in the background, and of a slight bruise on the leg as an exciting cause. Then follows a long attack of œdema of one lower extremity, with, ultimately, sudden implication of its follow. Enlarged and tortuous trunks of lymphatics were easily recognised in the abdominal wall.

Mr. W——, a gentleman of about fifty, was formerly under my care for several years on account of syphilis affecting his nervous system, and took iodide of potassium almost continuously for a very long period. In the beginning of June, 1871, he came to me one day complaining of pain in his right leg. I could find nothing the matter with it, but three days later the whole leg was in a condition of soft œdema, and on the outer part there was the ecchymosis of a bruise. The skin was not in the least cut; it was a simple contusion. On the first occasion he had denied having had any injury, but he now recollected that he had struck his shin in getting into a railway carriage. The œdema was peculiar in its sameness in all parts of the leg, and in the fact that the skin was pale, and had not the slightest trace of congestion. The leg measured an inch and a half more in girth than the other, and wherever pressure was made a deep pit was produced. A few days later he complained of pain up the inner side of the thigh, and we could distinctly trace an enlarged lymphatic cord. A few days after this the whole thigh was swollen, measuring an inch more than the other. He had in connexion with this œdema of the leg no special constitutional symptoms. At the end of a fortnight the œdema of the leg had almost wholly disappeared, and that of the thigh had diminished. After this, however, the œdema returned, and I advised that he should have the advantage of sea-air. He went to Ramsgate, and was there under the care of Mr. Henry Curling. One day I was hastily summoned there to see him, as he was in great alarm on account of sudden swelling of the other leg and thigh. For some weeks at this stage both lower extremities were greatly swollen, and he was wholly confined to bed.

On Sept. 10th Mr. W—— returned from Ramsgate. Whilst there he had much improved in health. During the last fortnight of his stay he had omitted the iodide of potassium, and without any relapse of his nerve symptoms. He had been three months there, and during the greater part of the time had been able to get out in a Bath-chair, but not to walk. At one time, about a month before his return, the swelling had wholly disappeared from his right leg, and after he had been a fortnight free from it, it again suddenly returned. On one occasion some large patches of erythema appeared on the left leg; he had also had great irritation in the skin of the legs. His condition at the time of his return was as follows:—Both lower extremities very greatly swollen, below the knee distinctly œdematous, so as to pit deeply, but above the knee hard and brawny; some congestion of patches on the left side, and a number of spots, probably the result of scratching. The swelling ended at his hips, and the upper part of his trunk was quite free from it. On the lower half of his abdomen, in the subcutaneous tissue, several hard cords could be felt. These could be traced in some places for six or eight inches in length; they appeared to be as large as crow-quills. The question was, were these lympathics or veins? No discolouration over them could be detected, but he told me that some weeks ago the skin had been red. Their great hardness, and the knotted unevenness of their surface, seemed to me almost conclusive as to their being lymphatics, and against the conjectured existence of phlebitis. I must note that none of the superficial veins, either of the thighs or abdomen, were visible, nor could I detect anything peculiar along the course of the veins in Scarpa's triangle. We must, however, make some allowance, in respect to the latter point, for the brawny condition of his thighs, which prevented more accurate examination. I cannot believe that phebitic thrombosis could cause such persistent œdema of the legs without being attended by enlargement of the collateral channels, and of this there was not the slightest trace.

As Mr. W—— was naturally anxious at the protracted duration of his symptoms, I suggested a consultation with Mr. Hilton. We met on Sept. 14th. Mr. Hilton agreed with me that the enlarged trunks felt in the abdominal wall were lymphatics, and not veins. After this Mr. W——'s symptoms continued to improve. In the course of a fortnight he could walk about, though the limbs were still somewhat swollen. During October some cord-like lymphatic trunks again appeared on the inner side of his right thigh, where they had been noticed in the first instance; but they had subsided in a week or two. In the beginning of November, 1871, the lower extremities had almost returned to their former size, and he was going about moderately. He was still unable to put his boots on, and wore loose cloth ones. The network of lymphatic trunks which had been for so long present over his left hip could only be felt here and there. A brawny condition of the backs of his thighs and soft œdema of the ankles, &c., had been his last symptoms.

As regards treatment, we had been giving him a rather active saline diuretic throughout. It had agreed well with his stomach, but had not produced any material diuresis. It is very possible that it had no share in the cure; but I may note that, when, after our consultation, we substituted it for a few days by the chlorate of potash, the legs swelled more. Mr. W—— throughout spent his time on a couch, with the feet elevated so as to be much higher than his trunk. We had his bed lifted in a similar manner. Whilst the legs were at their worst he got no benefit from bandaging; it was tried on several occasions, and each time laid aside, as it irritated the skin and produced local swellings. When, however, œdema of the ankles and feet was the only remaining symptom, we used bandaging at night with benefit, dissuing it in the daytime.

November, 1872.—Mr. W—— is in good health, and able to take exercise freely. I cannot, however, assert that he is wholly free from œdema about his ankles. I have never seen him without some slight evidence of pitting, and if he falls out of health it increases. He still takes tonics frequently, and has had every advantage which change of air and long residence at the seaside could give. The fact that his œdema still persists may, I think, be instructively kept in mind when we have to investigate some of our other cases in which implication of the lymphatics was not proved. In Mr. W——'s case there can, I think, be no reasonable doubt that lymphatic obstruction was the chief cause of his symptoms.

August, 1876.—The above report as to Mr. W——'s health and the local condition will still apply. He is obliged to wear elastic stockings, but is otherwise well.

In January, 1872, I saw, at the request of Mr. Disney Thorp, of Malden, and in consultation with my friend Mr. Abernethy Kingdon, a gentleman whose case in some features resembled that of Mr. W——. Our patient was sixty years old, tall, and rather stout. He had been accustomed to take a great deal of exercise, and had several times had his legs bruised. Eighteen months before I saw him he had suffered from what was considered to have been phlebitis of the deep veins of the left leg, which caused œdema, which persisted for a long time. At length it passed off almost completely, and after an interval his right leg began to suffer in a similar way. When I saw him his right leg was considerably swollen, and his left scarcely at all; and I could not but be struck with the resemblance of his history to that of my patient Mr. W——. Had it really been phlebitis? I could find no corroboration for this suspicion, for the superficial veins were not in the least enlarged. I must admit, however, that I was equally unsuccessful in proving any implication of the lymphatics. After his return home our patient made a perfect recovery. In November, 1872, Mr. Thorpe wrote to me that he was quite well, and able to hunt and shoot as usual.

I show you a photograph representing the state of legs in a man who was under care for a short time in this hospital about a year ago. You will see that the œdema is wholly confined to one leg, which is increased to at least twice the size of the other. The skin was somewhat thickened and hypertrophied, but the main cause of the swelling was œdema. He had suffered from the affection for several years, sometimes better and sometimes worse, but never well. There was no evidence of venous obstruction. We took him into the hospital, kept him in bed, and bandaged his leg, and in the course of ten days he was so much relieved that he insisted on going out. He said that on several former occasions he had obtained great benefit in a similar way, but that it was always merely temporary. His general health was good, and he attributed the attack, if I remember rightly, to a bruise.

I have next to mention two cases which may, I think, be very suitably compared together. One of them I shall be able to show you, as she is at present in the hospital. The other, whose case I will narrate first, is a young lady whom at intervals I have seen occasionally during the last five or six years. She is a patient of my friend Mr. Square, of Plymouth. Her age is about twenty-four, and she has suffered from her remarkable malady for the last ten years. Both legs are affected, and are in the condition of smooth elephantiasis; both forearms are also, though in a much slighter degree, enlarged in the same manner. Her feet are comparatively little involved, owing probably to the support given by her boots. The hypertrophy above the tops of the boots is very great, the legs being at least twice their natural thickness. This statement applies to her condition when I first saw her. In August, 1871, when I visited her in Plymouth, the state of things was considerably better, although it had then, she said, somewhat relapsed. One and the principal measure of treatment had been to send her to a more bracing air. During an eighteen months' residence in Scotland her general health had been very good, and the size of her legs had very much diminished. After a few months' resumed residence in Plymouth, she again began to feel weak, and the elephantoid condition began to increase. We had, of course, attended carefully to bandaging the legs, and tonics in various forms had been administered during long periods. A remarkable fact in this case is that Miss ——'s mother and grandmother had, as I was informed, both suffered from a similar disease in girlhood, and in both got rid of it as they advanced in years. None of Miss ——'s brothers or sisters had shown any tendency to it. Miss ——'s mother spoke in the strongest terms of her own experience of the relaxing effects of Plymouth air, stating that she, like her daughter, never felt well except when in a more bracing climate. In India, where smooth elephantiasis is common, it is generally met with in the natives of valleys which are damp and warm.

BEQUESTS TO MEDICAL CHARITIES.—Mrs. Elizabeth Taylor, of Margate, bequeathed £1000 each to the Asylum for Idiots at Earlswood, the British Home for Incurables at Clapham-rise, and the Margate Infirmary. The Hospital for Incurables, Dublin, has received £1000 under the will of Mr. M'Comas.

ON FILARIA SANGUINIS HOMINIS ÆGYPTIACA.

BY SIR J. FAYRER, M.D.

WHEN in Cairo last March, on my return from India, I had the pleasure of becoming acquainted with Dr. Prospero Sonsino, chief medical officer of the Province of Zig-a-Zag, in Egypt, and of Dr. Sachs, consulting physician to his Highness the Khedive, who resides in Cairo. In conversation with these gentlemen on the subject of the diseases of the country, and especially in reference to the hæmaturia due to bilharzia, which is endemic in Egypt, and has been long and carefully studied by Dr. Sonsino, and made the subject of some interesting communications to the Academy of Sciences in Naples, and the Egyptian Institute, I received some interesting information not only as to the bilharzia itself, its site, the pathological changes it gives rise to, and the extent to which as a disease it prevails in Egypt, but also concerning a new parasite, a nematoid hæmatozoon, a filaria, discovered by Dr. Sonsino in the blood of a young Egyptian Jew, aged about fifteen, who had for some years been under his observation for hæmaturia depending on bilharzia, and cachexia due to that and the presence of intestinal worms—ascaris lumbricoides and oxyuris!

I saw the patient at Dr. Sachs' house, where he and Dr. Sonsino demonstrated the bilharzia in the bloody urine from which the lad was still suffering, though to a less extent than formerly; and also living specimens of the new filaria, in blood taken from the boy's finger. The worm seemed closely to resemble that recently discovered by Dr. Lewis, in Calcutta, in the blood of persons suffering from chyluria, lymph scrotum, elephantiasis Arabum, and which very probably plays an important if not a chief part in the production of these diseases and pathological changes. Dr. Sonsino considers that the filaria he has discovered resembles rather the filaria observed in dogs by Dr. Lewis than that in man. It wants the external envelope, for example, and he proposes to name it as a distinct species—Filaria sanguinis hominis Ægyptiaca. Be that as it may, it is pathologically an important discovery; it strengthens the value of Dr. Lewis's investigations, and tends to support the suggestion that other forms of disease in hot and tropical climates, hitherto unsuspected of such origin, may on further investigation prove to be due to the presence in the blood and tissues of low forms of living organisms. It would appear that in the case of the young Egyptian alluded to there were no symptoms specially suggestive of the existence of a hæmatozoon; there was neither chyluria, elephantiasis, nor lymphatic varix, all of which are found in Egypt. Such morbid conditions as existed were referable to the bilharzia. The discovery was made during Dr. Sonsino's researches to ascertain whether the bilharzia was not of more general distribution throughout the systemic circulation than had been supposed.

Further researches will probably, ere long, throw more light on this very important subject—the natural connexion that exists between certain morbid conditions and the presence of various entozoa. In the meantime it is very satisfactory to know that such competent observers as Dr. Lewis in India, and Sonsino in Egypt, are engaged in the inquiry.

Dr. Sonsino and Dr. Sachs were good enough to prepare specimens of the new filaria for me, and these I have handed to Dr. S. Cobbold, F.R.S., whose supreme authority in such matters will decide the question of difference between the Indian and Egyptian species.

It is further interesting to know that Dr. Sonsino has recently discovered a new form of bilharzia in the portal vein of a young bull, aged three years, killed in the shambles at Zig-a-Zag. He describes the parasite in detail in a communication to the Academy of Naples in May, 1876, and he proposes to call it "bilharzia bovis," and he alludes to the discovery as not only of interest in its helminthological aspect, but of importance in a medico-hygienic point of view, as it may be the means of opening a way to the discovery (*in corpore vili*) of such prophylactic measures as may avert the disease from man.

ON CHRONIC ULCER OF THE STOMACH.

BY JOHN RICHARD WARDELL, M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE TUNBRIDGE WELLS INFIRMARY.

THE affection which has been variously termed simple, round, chronic, or perforating ulcer of the stomach is by no means an uncommon disease; and it is very probable—from its latent origin, the absence of acute indications, the often ill-defined and hardly to be said pathognomonic symptoms, and the close resemblance between such symptoms and the symptoms of mere dyspepsia and gastric irritation, and from its presence sometimes being revealed on inspection when there had been no suspicion of the complaint—that it obtains far more frequently than is generally supposed. The ancient writers knew of, and Celsus especially comments on, the affection. Several of the older authors speak of it; and amongst these, the account of Morgagni, from its truthfulness and delineation of the facts, may in particular be mentioned. But the best, amplest, and most correct descriptions are by more recent and contemporaneous pathologists; and most especially may be named those by Cruveilhier, Rokitansky, and Virchow on the continent, and Budd, King Chambers, Brinton, Habershon, Crisp, and Wilson Fox in our own country. These physicians have pointed out many distinctive characteristics of the ailment, and given much valuable information relative to its clinical history, its pathology and treatment. From the correcter knowledge which we now possess of gastric ulcer and of its symptoms and phenomena, it is by no means improbable that the older physicians mixed up and confounded with it cardialgia, hæmatemesis, and melæna, which are merely coetaneous events or sequents of the malady; and though each or all of these conditions may accompany the progress of gastric ulceration, yet there are cases in which even none of them are produced. It is not a disease of early life; it most rarely occurs before puberty, and the examples which have been given of its coming on before this time are rare and exceptional instances, and most probably some of the few recorded were really rather referable to cadaveric change, as it is not unfrequently an arbitrary decision which elects between such change and the more moderately pronounced but veritable process of ulceration. Nor is it at variance with fact that the same kind of mistake is liable to take place in other portions of the digestive surface. It is a disease which increases in frequency with advancing years. According to some statistics, its greatest liability has been found between twenty and forty. It has been roughly estimated that it is perhaps about three times more prevalent in females than in males, and this estimate seems to be borne out by the elaborate tables of Willigk, Miguel, and Crisp. From very large data deduced from observations after death, it may be safely said that ulceration of the stomach or duodenum is discovered in about the ratio of three per cent. of the deaths from all causes. Dahlerup, of Copenhagen, records a great excess of this number, and places the average as high as thirteen per cent. of all bodies examined. According to the calculations of Brinton, something like thirteen or fourteen in every hundred cases perforate. On the whole, it may be said that the poor and ill-clad and ill-fed are more liable to it than the rich. Copland long ago gave it as his opinion that domestic servants and seamstresses are particularly subject to this complaint. Most writers concur in believing that between amenorrhœa and this pathologic change there is some absolute but ill-understood correlation. Miguel thought the climacteric period, from forty to fifty, produces an influence favourable to the development of gastric ulceration; and Crisp has given facts which seem to point to the conclusion that perforation is rendered more probable in those instances in which there is irregularity in the uterine functions. Rokitansky says intermittents produce them; Engel averred that in ten per cent. of the cases which he had witnessed syphilis appeared to be the cause; and Krauss does not hesitate to attribute the ulceration to hæmorrhoids. There is no doubt that in an anæmic and cachectic condition of the system, in which there is blood-change and a generally lowered vitalism, this form of ulceration is liable to supervene. Again, change in the calibre of the gastric arteries is doubtless not unfrequently a more direct or proximate cause; while change may ensue after severe vomiting, mechanical injuries—as by blows, tight-lacing, girdles, and the like. From the knowledge which we now possess of the morbid phenomena produced by embolism in the brain, the liver, the spleen, and other organs, it is very presumptive that organic cardiac disease importantly enters into the etiology. Embolism may be carried into the gastric arteries, choke up a branch, and be followed by a circumscribed and destructive process. Virchow gives great prominence to embolic obstruction as a cause; and there is no doubt that chronic catarrh of the gastric surface, which in the course of time is succeeded by disease of the vascular walls and thrombosis, ought also to be instanced in the causation.

The following cases will illustrate the affection as it is sometimes observed.

CASE 1.—In April last I was requested to see Mrs. P——, a married lady, who had been under the care of an eminent London physician, and who was sent to Tunbridge Wells for the benefit of her health. She had had several children, was forty-five years of age, and she told me that her case was regarded as ulceration in the lining coat of her stomach. There was no emaciation, but she looked pale and anæmic, her pulse was feeble, her appetite impaired, and the bowels were inclined to be costive. She lived in a central part of London, and was much in the house. She stated that for a long period her appetite had been impaired, that there had been pain and fulness after meals, and that at times she was troubled with acid eructations. About twelve months before I saw her she had suddenly vomited a considerable quantity of blood. Since that event her health had been more delicate, and there had been general loss of strength. She had for long been strictly dieted, and regarded herself as an invalid. There was some tenderness and fulness at the epigastric region, with occasional pains, but no tumour or hardness could by manipulation be detected. The other abdominal and thoracic viscera gave no evidence of disease, and it was quite clear, both from the objective and subjective symptoms, that her chief trouble lay in the stomach. A few days after my first visit I was suddenly sent for, as she had vomited a quantity of blood. On my arrival she looked pale and exhausted, and the pulse was rendered soft and quick. She complained much of sickness, and placed her hand over the stomach, where, she said, there was a feeling of weight and discomfort. In a short time more blood was vomited, and she altogether lost nearly a pint. She was placed in the recumbent position in a cool apartment, iced drinks were given, and she took ten-grain doses of gallic acid in thin mucilage every two hours during the remainder of the day. Small quantities of iced soup were at the first only allowed. Hot appliances were put to the feet, and strict injunctions were made that she should be as quiet as possible. The bleeding not returning, the medicine was administered at longer intervals, and for some days she kept her bed, and only took iced food and drinks. In the course of time quinine and sulphuric acid were prescribed, and afterwards the tincture of the perchloride of iron. At the end of between two or three weeks she returned to London. I recently heard that this lady had had, up to that time, no recurrence of the hæmorrhage, and that her general health had improved.

CASE 2. — On the 1st of October, 1873, I was hastily sent for to see Mrs. H——, a married lady aged thirty, who, it was reported, had "burst a bloodvessel." On my arrival I was shown about half a pint of red, bright-coloured blood, which she had just vomited. The patient was lying on the bed, exceedingly pale, and evidently much exhausted. She was of thin and slender frame, and looked younger than her age. It was reported that about sixteen months prior to the above date, one evening when seated at tea, she momentarily felt her mouth to be filled with fluid, became sick, and vomited nearly a pint of blood. The hæmorrhage did not then return, but since that occurrence she had been much invalided. Without loss of time, she took ten grains of gallic acid in thin mucillage, and small quantities of iced drinks were given at short intervals. The hæmorrhage recurred two or three times subsequently, at intervals of a few hours, and her pulse and general prostration became

very alarming. For a time she lay in a semi-unconscious state, the pulse being quick, small, and compressible, the skin cool, and a feeling of nausea being very persistent. Her condition having assumed so serious a character, I was requested to sleep three nights in the house, in order to be at hand in the event of a return of the hæmorrhage. Her general weakness being afterwards so exceedingly pronounced, her friends wished Sir William Gull to be sent for; he, however, not being at home, Dr. Habershon came in his stead. I had then given her both the gallic acid and doses of turpentine. When Dr. Habershon saw her, he thought the bleeding might not return, and advised the continuance of the remedies a little longer. He also recommended, if more blood should be vomited, the free use in large doses of the tincture of the perchloride of iron. The hæmorrhage did not recur. This lady was an American, and subsequently to her first attack she had consulted some of the most eminent practitioners in New York, and the opinion had been given that her complaint was that of chronic gastric ulcer, in which Dr. Habershon fully coincided. For many weeks she remained in an extremely weak and fragile condition. She took quinine and iron, and from time to time other tonics; the bowels were kept open by mild laxatives, and very rigid rules were laid down in respect to her diet. I last heard of this patient through Dr. Habershon, who told me there had not been any more hæmatemesis, and that she seemed to have greatly recovered her general health. During the first forty-eight hours of my attendance, I very much feared death by syncope. It must, however, be borne in mind that alarming quantities of blood may be vomited in hæmorrhage from the stomach, and still recovery be the result, as I have repeatedly witnessed.

CASE 3.—The next example which I now give was one very typical of the slow but persistent progress of this complaint. On March 28th, 1870, I was requested to see Miss P. L. G—, a young lady twenty-six years of age, of whom I was told that she had been for several years an invalid. Her volume of flesh was good, nor was there any marked expression of disease in her countenance. I was also informed that about two years prior to the above date she had had for a long period persistent nausea and vomiting, and so continuous and distressing were these symptoms that her medical advisers then feared the consequent exhaustion would end fatally. She slowly recovered from that attack, and in the course of time could digest a prescribed diet. She, however, remained much of an invalid. She had consulted some of the leading men in London, and all whose advice she sought concurred in the opinion of gastric ulcer. She had repaired to various places for change of air and climate at home and on the Continent, and at length came to Tunbridge Wells. When I first saw her she was in bed, and she told me that during the previous three days she had had a return of sickness and vomiting. Her food could not be retained, and, immediately after taking any nourishment, it was ejected. On inspection of the abdomen, there was a rounded fulness over the stomach, and on palpation moderate pressure produced epigastric pain. The line of hepatic dulness slightly exceeded the costal edge, but there was no splenic enlargement. The physical signs of the thorax gave no notable characteristics. The tongue was moist, but coated on the dorsum. Pulse 84, small, regular, and compressible. Bowels confined, and last evacuation was dark and biliary. She was ordered small doses of the bicarbonate of potash, morphia, and hydrocyanic acid. I was in constant attendance on this young lady for some weeks, and the nausea and sickness, beyond very temporary alleviation, defied all remedies. Various medicines were prescribed, but with no satisfactory effects. She had morphia, herbane, conium, prussic acid, creasote, belladonna, and opium. Sedative suppositories, stimulating injections, counter-irritants, and ice to the spine, were tried, but without producing any marked relief. Concentrated soups, milk, and lime-water, jellies, and other bland nutrients, were ordered, but even these were as a rule rejected. Iced champagne was better retained than any other stimulant. When such a scanty amount of ingesta were kept in the stomach, it was not wondered at that she gradually lost flesh and strength. As time went on the wasting became more and more apparent, the lips became dry and parched, and the tongue covered with a silvery coat, the tip and edges looking red and irritable. The eyes assumed a sunken appearance, and seemed small in their foramina, and the facies hippocratica ere long was marked, and expressive of her slow but sure decline. With these ominous changes the pulse indicated the diminished column of blood passing through her heart; it was weak, thready, and irregular. Three days before her death the cerebral functions succumbed in the general loss of vital power; she looked around her with astonished gaze in hazy bewilderment. Utter unconsciousness supervened, and she tranquilly sank on May 7th, 1870. This instance of the disease well illustrated one mode of death which ushers in the final termination—that in which there is gradual and unarrested extinguishment.

(To be continued.)

CASE OF RAPID COAGULATION OF THE CONTENTS OF AN ANEURISMAL SAC BY MEANS OF COMPRESSION.

BY STAFF-SURGEON G. W. J. SUTHERLAND, R.N.

(Communicated by the DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

C. B——, aged twenty-nine, captain of the maintop, was received from the *Boscawen* on the 1st July, with an aneurism, about the size of a pigeon's egg, in the left popliteal space, the result of a strain when on duty aloft about a fortnight previously. Swelling and pain of the leg had been removed by former treatment. The pulsations in the sac were arrested, without diminution of its size and without stopping the circulation of the limb, by slight pressure with the thumb over the femoral artery where it leaves the pelvic cavity; but even this degree of force, when applied by means of a compressor, could be borne only for a short time. Continuous pressure was therefore only employed so as to modify the strength of the pulsations in the sac.

July 2nd.—Swelling painless and not enlarged. Genuflexion was tried to-day, but discontinued in consequence of pain behind the knee; and compression was resorted to as before.

3rd.—Sac increased in size, its expansion being entirely lateral—i. e., across the axis of the vessel. One compressor was applied over the artery at the pelvic brim, and another at the apex of Scarpa's space, with sufficient force to render the sac all but pulseless. Considerable but not acute pain was endured by the patient—an intelligent man who understood the nature of his case,—but it was modified by occasionally making each point of compression take its turn of duty, while the other was relieved.

4th.—Sac incompressible, but pulsates slightly without expanding. All pulsation ceases on pressing the tumour against the femur. Apparatus applied as before.

5th.—Tumour solid and pulseless. No pulsation can be felt in the main artery for two inches above the tumour, nor in the anterior and posterior tibials near the ankle-joint.

As a matter of precaution, one compressor was kept on the limb with a slight degree of force till the 10th, when it was finally removed. In the meantime the tumour gradually diminished, and on the 21st was less than a walnut, its ends becoming cord-like. Pulsation in the vessels at the ankle-joint was first observed on the 20th, but nothing abnormal was detected in the state of the leg during the period occupied in establishing collateral circulation, except that it was larger in circumference than the right leg by one inch.

The apparatus mainly instrumental in completing within forty-eight hours the process of coagulation consisted of an aneurismal tourniquet or compressor, and an almost semi-circular band of iron, which could be loosely applied over the limb at the lower part of Scarpa's space. The posterior arm of this band, which was made by a blacksmith from a gutta-percha model, was flattened out to twelve square inches, so as to afford a large area for counter-pressure on the back of the limb. Through a slit in the anterior arm could be passed the central rod (provided with a screw) of an ordinary tourniquet, the upper bar of which was fastened to the anterior arm, and a pad attached to the lower bar could be pressed upon the femoral artery by merely turning

the screw. As the pad descended only one-twelfth of an inch for each quarter-turn of the screw-handle, it is evident that pressure on the vessel could be regulated to a nicety by means of this rudely constructed but efficient instrument.

Sick Quarters, Portland.

ON THE

THERAPEUTIC VALUE OF HYDRATE OF CHLORAL IN CERTAIN FORMS OF CONVULSIVE DISORDER.

BY CHARLES A. RAYNE, M.B. B.S. LOND.,

ASSISTANT-PHYSICIAN TO THE MANCHESTER GENERAL HOSPITAL FOR CHILDREN.

IN the number of THE LANCET for March 13th, 1875, I reported a case of convulsions in a child, under the care of Dr. Acland, at the Radcliffe Infirmary, Oxford, which readily yielded to treatment by hydrate of chloral after failure of the usual remedies, and in which the cure, so far as could be afterwards discovered, was complete and permanent.

The case presented the following distinctive features. The patient, a boy aged five, was of lively and intelligent disposition and of good general health. The attacks followed, and were attributed to, a blow upon the head, though it was discovered that entozoa were present in the intestine, the removal of which, however, failed to have more than an incomplete and temporary effect in the cure of the disorder. The convulsions were very frequent, often numbering twenty to thirty in twenty-four hours, but short in duration, and singularly abrupt and sudden both in onset and termination. They occurred both night and day, and were attended with absolute loss of consciousness, and with muscular phenomena which corresponded very closely with such as were artificially obtained by Professor Ferrier on stimulation of certain frontal and parietal convolutions in some of the lower animals.

I have recently had under my care, at the Manchester General Hospital for Children, a case which presents many features in common with the above, and which also yielded to hydrate of chloral treatment after failure of other remedies.

J. A——, a girl, aged nine, was admitted on May 23rd, with convulsive attacks. These, it is stated, commenced twelve months ago, without known cause, and occurred then to the number of three or four in the day. They disappeared under medical treatment in the course of three months, but reappeared about six months ago with much increased frequency, and though she has since this time been under the care in succession of several medical men in the town, there has been no improvement. Her mother was subject to "fits" three years ago, in which she fell down and lost her consciousness, these occurring two or three times in the day, but disappearing at the end of four months. The rest of the family, which is a large one, are healthy.

The patient is a healthy-looking, well-nourished girl, quick and intelligent in her general appearance and in her answers to inquiries. There is no affection of the heart or kidneys discoverable, nor reason to suspect the presence of entozoa or other sources of internal irritation. The attacks number about fifteen in the twenty-four hours, and occur both night and day, at pretty regular intervals of one to two hours. Several were carefully watched. There is not the slightest aura of any description, the fit coming on at once without warning in the middle of any occupation she may be engaged in. The onset is so sudden that it is impossible to decide what group of muscles is first affected. The attack is limited chiefly to the upper part of the body, and is not unilateral. The head is drawn down, and both sterno-mastoids are rigid. Both arms become rigid in semi-extension, and are seized with a tremulous motion. The facial muscles are unaffected so far as can be seen; the eyeballs are motionless and straight, the pupils being somewhat dilated and conjunctivæ insensible. A groaning kind of noise is made during the time the fit lasts (about one minute), respiration being laboured and rapid, and apparently taking place through a contracted glottis. Recovery is rapid and complete, there being no after drowsiness, headache, or intellectual confusion. From examination during the attack, as well as a careful questioning of the patient, it appears that consciousness is entirely suspended during the attack.

Patient was at first kept quietly in bed, without medicine, with the view of testing the effect of a regulated condition of living. There being no improvement, on the 26th bromide of potassium, in five-grain doses thrice daily, was ordered; on the 29th ten-grain doses, thrice daily, were given, and on the 30th one drachm at a single dose. This treatment had not the slightest effect of any kind; the attacks remained the same in character and duration, and still numbered about fifteen in the twenty-four hours. Tincture of belladonna was then given in five-minim doses every six hours, and was increased on June 1st to eight minims. The fits now numbered from fourteen to eighteen in twenty-four hours, and were unaltered in character and duration.

June 3rd.—Patient took eight grains of chloral hydrate at 5 P.M., and had no fits during the next seven hours (about the length of time in myself of a sleep produced by the drug, and which perhaps is connected with its period of elimination from the body). There was no sleepiness after the chloral. From midnight to 10 A.M. there were seven fits. Always sleeps well at night.

5th.—There has been no further dose of chloral given, and the patient has had in the last twenty-four hours twenty-three fits, which brings up the average for the two days to fifteen again. Ordered five grains of the chloral twice daily, at 10 A.M. and 4 P.M.

8th.—Has had five fits each day, and these occurred always during the night hours, from 11 P.M. to 5 A.M., except on the 7th, when there was a fit in the daytime, evidently due to disturbance caused by a small dose (one drachm) of castor oil, for it occurred half an hour afterwards, and on this day the fits numbered seven in the day. Ordered five grains every six hours, commencing at 10 A.M.

12th.—Has had from three to four fits each day, all occurring in the early morning hours from 1 to 6 A.M. The night doses at 10 P.M. and 4 A.M. ordered to be increased to ten grains. Always sleeps well at night, notwithstanding the fits.

21st.—Up to the 16th patient had one or two fits each night, but since this time there have been none. Ordered five grains of chloral at 10 P.M. and 4 A.M.; none during the day.

25th.—There has been no fit. To stop the chloral altogether.

July 10th.—There has been no return of the fits since June 16th, and patient is discharged apparently in every way healthy.

Remarks.—These two cases present several points of great interest.

1. The muscular phenomena were almost identical in each, with the exception that in one they were unilateral, in the other bilateral, and therefore there was not in the latter that turning of the head and eyeballs fixedly to one side so observable in the former (*vide* report), though the muscles of each side were rigid. In both cases it is highly probable that the seat of mischief was in certain motor centres situate in the cerebral cortex, in the convolutions bounding the Sylvian fissure, as described in greater detail in my former paper; these are supplied by a large branch of the middle cerebral artery, which courses through the very centre of the disturbed district. It is here, according to the experiments of Prof. Ferrier and others, that the centres for the movements described are situated, and it is interesting in this connexion to note the instantaneous and absolute loss of consciousness in each case during the attack—not only in that in which the disturbance must have affected both sides of the brain, but also, as far as could be ascertained at least, in that where it was limited to one side.

2. In both cases the administration of bromide of potassium was absolutely without effect. There can, I think, be now no doubt, since the researches of Ferrier and others, that motor centres exist in the cerebral cortex itself (as well as in the spinal cord and its prolongations to the base of the brain), which stand in more immediate relationship to

the organs of will and intelligence. And it would appear that over these higher motor centres bromide of potassium is entirely without control, and in convulsions there originating it is valueless—that its sedative and controlling powers are, in fact, limited to the centres in the spinal cord and basal ganglia. It is difficult to conceive of any reason for such strange selective power where the conditions appear so similar, but the domain of therapeutics abounds in similar instances. It is interesting to observe that in cases of convulsion where bromide of potassium so often acts as an invaluable curative agent, and which on other grounds may be supposed to originate in the base of the brain, or especially the upper part of the cord, consciousness is not always lost or even necessarily affected at all, and where it is so it is probably due to a "nerve storm" of so wide a range as to affect secondarily the higher centres.

3. In both cases the effect of hydrate of chloral was immediate and most marked, and at first there was a distinct relationship between the number of the fits and the time of their occurrence and the amount and time of administration of the chloral. This may perhaps be taken as an additional argument for the cortical origin of the disturbance, judging from the known power of the hydrate to control the higher centres, as shown in producing sleep, whilst the bromide has no such *direct* effect. It is a point of considerable interest to determine the action of the chloral in cases of disturbance originating indubitably in the lower centres; this I have not yet had an opportunity of doing. The mode of action is probably that by its sedative effect on the irritated nerve-centres it gives the opportunity for rest required to recover tone and nutrition, and to break a "bad habit."

4. The greater liability of the fits to recur in the early morning hours during bodily rest deserves a word of mention as having a therapeutic bearing. This may be due in some measure to fasting and consequent lessened nutrition, but is more likely to depend upon the fact that the normal channels for distribution of nerve-force in muscular action are for the time more or less closed, and the force thus pent up has a greater tendency to discharge in abnormal directions. If this be so, it need scarcely be pointed out that to keep a child suffering from an affection of this kind quietly in-doors or in bed is the worst of all treatment, and that benefit will be likely to accrue from the promotion of active exercise.

St. Ann's-place, Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

THREE CASES OF TETANUS TREATED WITH CALABAR BEAN.

(Under the care of Dr. DICKINSON and Mr. POLLOCK.)

As the notes of these cases are necessarily extended, we are unable to insert them all in the same issue of this journal. We shall, however, endeavour to complete the series as soon as practicable. It is impossible not to recognise from the subjoined record the beneficial effects of the exhibition of Calabar bean, both subcutaneously and by the mouth. The severity of the spasms decidedly abated when the extract of Calabar bean was given, but increased when it was temporarily discontinued. Eventually the man recovered, and it seems not too much to affirm that he was cured by Calabar bean. For the notes we are indebted to Dr. FERWICK, medical registrar, and to Mr. BULL, surgical registrar.

CASE 1. *Wound of hand; tetanus; administration of extract of Calabar bean subcutaneously and internally; recovery.*—H. W——, aged forty-seven, a gardener, was admitted into Fuller ward June 16th, 1875. Exactly three weeks prior to admission, whilst raking leaves under a laurel-bush, he received a wound in the web between the thumb and index-finger from a branch that had been cut off obliquely. The wound, which was about half an inch deep, was carefully examined, but nothing found in it; it kept open for a fortnight, during which time it was kept clean and covered with dry rag. On the evening of the 11th (sixteen days after the injury) he had slight shivering and some difficulty in shutting his mouth, and on the following day (12th) he had spasmodic pains in the shoulders and back, and was unable to open the mouth fully, and the following day (13th) the pains increased and he became unable to swallow solid food; the legs did not become affected till the 15th, on which date he fell down whilst walking in the street. An old ulcer of the leg had been open also during all this time. He said that eight years previously he had an attack of acute rheumatism, ever since which he had been accustomed to micturate six or eight times during the night, and whenever he had caught cold it had been followed by uneasiness in the lumbar region.

When admitted he was in a condition of opisthotonos; the muscles of the back and abdomen were tense and hard, and he was unable to flex the thighs; the soft palate also felt tense, the breathing was stridulous, and he was unable to speak above a whisper. Spasmodic contractions of the facial and cervical muscles occurred ten or twelve times a day, lasting about five seconds, when the eyes were tightly closed, the eyebrows raised, and the lower jaw depressed, the mouth being slightly open, and the head thrown back. He was in great pain in the back and abdomen. The pulse 76, equal on both sides. A few sonorous rhonchi were audible in the chest. The bowels had not acted for four days; the urine deposited a thick sediment on standing, gave an acid reaction to litmus paper, and contained a little albumen and some pus-corpuscles. There was an unreduced hernia on the left side, which had existed for twelve or fourteen years. The bowels were freely opened by calomel followed by senna draught. Ordered to take, every four hours twelve grains of chloral hydrate, and twelve of bromide of potassium. Diet: two pints of strong beef-tea, one pint of milk, and four ounces of brandy.

June 17th.—There appears to be slight relaxation of the spasm.

18th.—The spasm has rather increased again, and the patient complains of shooting pains in the epigastrium, also of much pain in the hernia, which appears to be distended with flatus; abdominal muscles are still as hard as wood. Pulse 80. Bowels have not acted again.

19th.—Much worse. Spasmodic contractions have extended to trunk and limbs, and recur five or six times a minute; risus constant; skin covered with perspiration. Pulse 125; temperature 99·2°. There has been no more action of the bowels.

20th.—One-eighth of a grain of extract of Calabar bean was injected subcutaneously every hour from 11.15 P.M. till 7.15 A.M. Ordered thirteen ounces of brandy mixture.

21st.—After the injections he began to feel easier, and slept part of the night, the pain having left the back and front part of the chest at 4 A.M. Spasmodic contractions now occur at intervals of about two minutes, and are much less severe than yesterday, but are excited by the slightest touch. He complains of great pain in the knees. Skin hot and dry. Respiration 23; tongue brown and coated; breath very offensive. Very little action of bowels on the 19th or 20th; none to-day.

22nd.—Better. Pulse 88; temperature 99·4°. Pupils slightly contracted; spasms less frequent and less severe. Bowels have acted freely. Injection continued every hour and a half alternately with a pill containing one-sixth of a grain of the extract. After 10 P.M. the pills and injections were repeated every two hours.

23rd.—Less spasm. Pulse 85; temperature 99·6°.

24th.—Much better. Spasm less frequent and less severe. Rectus abdominis muscle not so hard. Opisthotonos continues, causing trouble in getting rid of mucus from throat. Urine passed involuntarily during spasms.—12 M.: Injection increased to one-fourth of a grain.

25th.—4 A.M.: Pain in chest rather severe. Pulse 150. Clicking reduplication of second sound of heart. Spasms very infrequent; accumulation of mucus in trachea more marked, but relieved by ether. Pill and injection discon-

tinued till 9 A.M., when the return of spasm was more frequent. At 9 he had an injection, at 10 a pill, and at 11 A.M., when the spasms became less frequent, an injection. No action of bowels since 22nd.—2.30 P.M.: Injection and pill to be continued every two hours only. Bowels opened by calomel followed by senna draught.

26th.—He has slept much better. Temperature 101°; pulse 98. Spasms do not now occur except on tickling the throat; no pain. Injection every four hours; six ounces of brandy mixture.

27th.—He has slept well. Pulse 108; temperature 102°. Tongue coated. Bowels have acted freely; motions fluid. He has a slight spasm about every hour.

28th.—Bowels relaxed. Pulse 108; temperature 102°. Spasms occur about once in an hour, but are slighter. Given two pints of porter and a light pudding.

29th.—4 A.M.: Bowels less relaxed. Pulse 115; respiration 30. Spasms not so frequent. Three pints of porter and some arrowroot.—1.30 P.M.: Pain in chest and side; mucus appears to collect in larynx, causing dyspnœa; loud bronchitic râles heard all over front of chest. Pulse 98; temperature 100°.

30th.—Less dyspnœa; bowels have acted; tongue cleaner; pulse 100; temperature 98 6°.

July 1st.—Injection every third hour during the day, pill every third hour during the night.

2nd.—Abdomen softer. Up in a chair for three-quarters of an hour, sitting with difficulty. Given two ounces of pounded meat.

3rd.—Slight return of spasms; urine and fæces still passed involuntarily when spasms come on; tongue dry and brown, but cleaner. Pulse 96, stronger. Two-thirds of a grain of extract of Calabar bean subcutaneously every three hours during the day, but as a pill by night; given three ounces of pounded meat.

4th.—One grain of the extract as a pill every three hours during the night; injection as before.

5th.—Had a mutton-chop and two eggs; the injection increased to one grain and the pill to one grain and a half.

6th.—More power over sphincter; was up yesterday for three-quarters of an hour, sitting more comfortably; appetite better; tongue dry and brown; pulse 100, still weak.

9th.—Rigor. Temperature rose to 105°. One grain and a half of the extract given subcutaneously every three hours during the day, and two grains in a pill every three hours by night.

10th.—Temperature 98°. He has had no spasms since yesterday; complains of headache, and is not inclined to sleep; pupils somewhat smaller, and abdominal muscles not so tense; back not so painful; appetite bad; pulse 96°. All previous medicines to be omitted. To have a dose of compound rhubarb draught.

13th.—No more spasms; feels better. Ordered six grains of sulphate of quinine in dilute hydrochloric acid and decoction of bark, every six hours.

On the 11th the temperature was 101 6°; 12th, 101 6°; 13th, 100·5°; 14th, 99 5°; 15th, 98°; afterwards normal.

During the next fortnight he continued to have some pains in the back, and even till August 10th was obliged to rub it occasionally, and at that time also he still experienced considerable stiffness about the groin and legs, but had no actual pain except on moving after remaining for some time in one position. His face then was thin, cheeks sunken, and limbs emaciated, but he said he was rapidly gaining flesh. He improved much in condition, though his legs remained weak and stiff, and on August 18th was sent to Wimbledon Convalescent Home. He was seen some months afterwards in good health.

ST. MARY'S HOSPITAL.

CASE OF CHOREA, CURED BY CHLORAL HYDRATE AND BROMIDE OF POTASSIUM, AFTER FAILURE OF CONIUM.

(Under the care of Dr. SIEVEKING.)

IN the case the notes of which are subjoined, and for which we are indebted to Mr. Sworder, conium seemed not to be productive of any perceptibly good effects, while faradisation did positive harm. The girl was for a time quieted by the inhalation of chloroform and by the subcutaneous injection of morphia; but a mixture of bromide of potassium and chloral hydrate appeared to be the active agent in checking the irregular movements, and in setting the child on the road to cure.

Emma B——, aged twelve, was admitted Feb. 29th, 1876, suffering from chorea. She was taken ill a month before, and three weeks after a severe fright. On admission, she had well-marked symptoms of chorea. The lower extremities were not much affected, but the clonic movements were seen chiefly in her arms and neck. She could shake hands and squeeze any object fairly well; tongue clean; bowels regular; heart-sounds normal. She had never had rheumatic fever. Temperature normal; pulse of fair strength, regular; lung-sounds healthy. To have broth diet, two pints of milk, and one pint of beef-tea. Ordered two drachms of the juice of conium three times a day, and half a drachm of chloral draught when necessary.

March 2nd.—Conium increased to three drachms.

3rd.—Conium increased to four drachms.

7th.—Ordinary diet and one egg. She seems a little better; bears the conium well; bowels open; tongue clean.

10th.—To discontinue conium, as she shows no material improvement. Ordered ten grains of peroxide of iron as a confection with a drachm of treacle three times a day. Urine: sp. gr. 1034, acid; no albumen; no sugar.

13th.—Ordered half an ounce of conium three times a day. To discontinue the iron.

14th.—Faradisation to be applied to the spine and extremities twice a week.

17th.—Faradised for the first time yesterday; does not seem so well to-day. To discontinue the conium, and to take three drops of solution of arsenic, with two drachms of steel wine three times a day.

19th.—Was faradised again to-day; she was decidedly worse in the evening, throwing herself about a great deal, and being fed with difficulty; pulse very feeble; she passes urine and fæces involuntarily.

20th.—Slept very little. Is worse than yesterday. Ordered ten grains of bromide of potassium and five of chloral hydrate at night.

21st.—Slept very badly. In the afternoon the arsenic and iron were discontinued, and ten grains of bromide of potassium and ten of chloral, three times a day, were ordered. It was very difficult all day to keep her in bed, and almost impossible to feed her. It took one person to hold her head, and another the arms and legs, while a third fed her. She also had to be tied down, as she threw herself out of bed. She was continually gnashing her teeth, and had bitten a piece off the feeder, and was then fed from a medicine bottle, a baby's bottle not succeeding. She was so bad at 6 P.M. that she had ten grains of chloral given her, and at 7.40 P.M. ten grains each of chloral and bromide, and this was repeated at 12 10 P.M.; but before this she was put twice under the influence of chloroform, the effects of which did not last more than twenty minutes each time. At 1.20 A.M., being very bad, she was again put under chloroform, and while under its influence one-sixth of a grain of morphia was injected hypodermically. This kept her much quieter for two or three hours, and during the night she had two more doses of the chloral and bromide. Ordered four ounces of brandy in addition to four ounces of port. She took about a pint and a half of milk during the day, and a little beef-jelly. Faradisation to be discontinued.

22nd.—She was put twice under the influence of chloroform this morning, but she is by no means so violent as yesterday. Has taken the chloral and bromide every three hours.

23rd.—Rather better, but still throws herself about very violently. She did not recognise her mother.

24th.—Yesterday she took four doses of the chloral and bromide. She is better; still very difficult to feed her. She takes plenty of milk and some beef-jelly, as well as her wine and brandy.

25th.—Much better. Much less difficulty in feeding her. Ordered chloral and bromide three times a day.

April 26th.—Can manage to swallow some bread and milk. Shakes hands tolerably well; she could not manage this at all two days ago. Passes her motions and urine naturally.

27th.—Still improving. A penny was held above her head, and she was told to try and get it; she immediately secured it.

28th.—Shakes hands very nicely, and takes her food very well.

31st.—Still improving. On setting her up in bed she threw herself about for a minute or two in something like her old style, and then became pretty quiet. Pulse stronger. Ordered to continue the chloral and bromide, and in addition to take the iron and arsenic mixture of the 17th.

May 3rd.—Improving rapidly. Has for two days been able to feed herself nicely, and can manage to sit up in bed pretty well.

8th.—To discontinue chloral and bromide.

10th.—Early this morning she got up and dressed, and was, to the surprise of all, able to walk very decently. She still has slight choreic movements, especially of face. Ordinary diet; to discontinue brandy; port two ounces.

14th.—Walks very nicely; can manage to walk up and down the ward, keeping on one board.

23rd.—She went out to-day perfectly well, with the exception of occasional slight choreic movements of hands when under the influence of any excitement.

Reviews and Notices of Books.

The Surgery of the Rectum: being the Lettsomian Lectures on Surgery, delivered before the Medical Society of London, 1865. By HENRY SMITH, F.R.C.S., Surgeon to King's College Hospital. Fourth Edition. London: J. and A. Churchill. 1876.

THE appearance of four editions of this work within the comparatively brief period of ten years is unequivocal testimony of its value. The book consisted originally of three lectures on Fistula in Ano, Stricture, Cancer, and Polypus of the Rectum, and on the Treatment of Hæmorrhoids and Prolapsus. In this edition the author has, however, appended a useful chapter on the Painful Ulcer of the Rectum, "a disease which," as he very justly observes, "is very frequently met with, produces the most intense suffering, and yet, when properly treated, is more readily and easily cured than any other similarly painful malady."

Although each of the chapters has been well revised and greatly improved, special attention seems to have been bestowed on that in which the treatment of hæmorrhoids and prolapse is discussed. Extended experience has confirmed and even increased Mr. Smith's faith in the efficacy and safety of the clamp and cautery for the removal of internal hæmorrhoids. Over four hundred cases have been operated on by the author with unusually successful results—results quite unattainable, we believe, by the ligature, or any other known mode of treatment. As Mr. Smith's views are now so well known, and as his later experience was set forth in a paper read before the members of the Medical Society of London last year, and which subsequently appeared in our columns, further comment is unnecessary. To those, however, who have not already studied the author's arguments, we strongly recommend a careful perusal of this little work.

Before concluding our notice of the Surgery of the Rectum, it may not be out of place to protest against the general neglect of this important subject, alike at medical schools and in general practice. There is now no excuse for this. The literature of diseases of the rectum has rapidly developed of late years, and a gradually increasing number of intelligent surgeons are now paying considerable attention to these distressing and painful maladies. A widespread knowledge of these diseases is the surest means of checking the abuses of specialism in their treatment.

The Peasant's Home, 1760–1875. By EDWARD SMITH, F.S.S. Small 8vo, pp. 139. London: Stanford. 1876.

IN 1873 the Statistical Society of London, at the instance of Dr. William A. Guy, founded a Howard Medal, to be awarded as a prize to the author of the best essay on some question of social statistics, in which John Howard was himself interested, the Society itself naming the subject for competition. The subject first announced was "The State of the Dwellings of the Poor in the Rural Districts of England, with special regard to the Improvements that have taken place since the Middle of the Eighteenth Century, and their Influence on the Health and Morals of their Inmates." Mr. Smith was one of the competitors, and to him the Howard Medal was awarded for the "sketch," as he phrases it, which he now publishes under the title of "The Peasant's Home."

This sketch is a very readable and thoughtful summary of information bearing upon the subject to which it is devoted. While, on the one hand, it indicates how much has still to be done for the improvement of the peasant's home in this country, on the other it gives a hopeful picture of what has been done. It is noteworthy that Mr. Smith looks chiefly to the amendment and careful administration of sanitary law for such further improvement in the dwellings of the poor in the rural districts as is so much needed. He says: "From a stringent local sanitary supervision alone can any hope of reform be looked for." (p. 22.) He distrusts, however, the supervision by local sanitary officials, and sees hope most in the direction of authoritative inspection by the Government. (pp. 42–43.)

It is a curious comment upon prize essays, their promoters and judges, that while Mr. Smith should thus, as the result of his observation and study, have been led to look to sanitary law and administration as the levers by which to heave to a higher level the state of our peasant's home, and should have felt called upon to give even specific suggestions upon the sanitary requirements of this home, he should seemingly be unacquainted with the one official sanitary inquiry which of recent years has been made on this subject. We refer to the inquiry on the state of the dwellings of rural labourers, made in 1864, under the direction of the Privy Council, by Dr. Harry Julian Hunter. This inquiry, which extended to every county in England, and included a detailed inspection of upwards of 5000 "peasants' homes," is unquestionably unique with reference to the sanitary aspects of the question. Other inquiries of the Privy Council, and still later of the Local Government Board, also throw much light upon the sanitary questions attaching to labourers' homes in rural districts, and it is to be regretted that Mr. Smith had not familiarised himself with them and with Dr. Hunter's report before committing himself to certain of the recommendations in his essay. It is too little understood how much the difficulty of dealing with the sanitary defects of the peasant's home is exaggerated by crude suggestions of improvement.

Spiritualism and Allied Causes and Conditions of Nervous Derangement. By WILLIAM HAMMOND, M.D. New York: Putnam. London: Sampson Low, Marston, Low, and Searle. 1876.

"THERE is an inherent tendency in the mind of man to ascribe to supernatural agencies those events the causes of which are beyond his knowledge; and this is especially the case with the normal and morbid phenomena which are manifested in his own person. But as his intellect becomes more thoroughly trained, and as science advances in its developments, the range of his credulity becomes more and more circumscribed, his doubts are multiplied, and he at length reaches that condition of 'healthy scepticism' which allows of no belief without the proof."

These are the opening sentences of a book which, so far as its object goes, scarcely required so able a physician and author as Dr. Hammond to write it. To expose the fallacies of the superstitious in all ages is, however, a useful task, and, when performed by such skilful hands, the result is a

volume as full of instruction as it is of interest. Nor can it be said to be untimely; for although mesmerism may have come to be generally regarded in the same category of extinct faiths as the black art of the magician and the wonder-worker, yet, to our shame be it said, there is still credulity enough abroad to place faith in "fasting-girls," stigmatists, and miracle-workers, as there is in spiritualism. That such credulity should abound in days when education is universal is a melancholy fact; but more melancholy still is it that the most blindly credulous in such matters are, too often, not the ignorant, but those whose position in the intellectual world should, above all, have placed them in the position of "healthy sceptics."

Dr. Hammond, in this work, travels over wide ground, meting out the same measure to the modern believer in so-called spiritualism as to those who had faith in the magician's wand and the witch's craft. He has succeeded in placing before the public, by whom we trust his book will be widely read, the true and rational interpretation of all the various forms of faith in the miraculous which the world has known. Magnetism and the "odic force" of Reichenbach, mesmerism and other spiritualistic manifestations, somnambulism, hysteria, fasting-girls, hystero-epilepsy, and stigmatisation, each in turn receives full and complete illustration, and thorough and exhaustive exposition. The author dedicates his book to "all, few though they be, who are free from superstition." We are sure it will be read not only by that small class, but by the wider circle for whom it is especially intended.

REPORT
OF
The Lancet Commission
ON
LUNATIC ASYLUMS.

CAMBERWELL HOUSE.

THE asylum to which attention has been painfully directed by the unfortunate case of F. W. Wimberley is one of the five "metropolitan licensed houses" receiving pauper as well as private patients. These institutions must be regarded as occupying a position, and lying under obligations to the public, intermediate between those of county and borough asylums and private establishments. The former are in the broadest and truest sense public, maintained by public funds, and administered on behalf of the public by a committee of justices and officers duly appointed and paid out of the local rates to discharge a public duty. The latter, although very properly placed under the protection of the Commissioners in the interests of humanity and social prudence, are private ventures, and it is a matter of contract between the proprietor and the friends of lunatics how they shall be treated. The law only applies to the bargain so far as it casts the protection of the State around all its members, adapting the obligations it imposes to their special needs. These licensed houses, which are in fact private establishments undertaking work by contract for the State, are amenable to the supervision prescribed by the law for all asylums, and besides this, they are open to inspection and subject to remark as quasi-public institutions, for the time being, at least, performing a public service It is necessary this should be understood; because the five "metropolitan licensed houses" on which this Commission has yet to report—in order to complete the survey of pauper lunatic asylums in and near London—must be treated with the same freedom in respect to their efficiency which has been used in dealing with the county and borough asylums, the "workhouse asylums," and the hospitals upon which we have already reported.

Camberwell House is a series of buildings pleasantly situated on opposite sides of the Camberwell New-road. There are three blocks on the north and two on the south. The property throughout has been adapted, and consists of a tenement of considerable size, once used as the Naval School, and three private residences. Additions have from time to time been made as became necessary. The grounds are extensive—not far short of twenty acres—and laid out with excellent effect. From some points of view it is difficult for the visitor to believe himself so near London. The general aspect of the establishment is cheerful; and it does not present any feature characteristic of a place of detention for lunatics. The house was opened on a small scale in 1846, with the view of meeting the then pressing demand for additional accommodation for pauper lunatics. The reception of better-class patients belonging to the lower middle grades of society grew out of the first enterprise. At the present moment the house is licensed for 483 inmates, and of the 406 resident on the 1st of January in this year, 270 were private patients and 136 paupers. It is with these last we are especially interested, but of the asylum as a whole there is something to say. The charge made by the licensed houses generally for pauper lunatics is 19s. 3d. per week. It is therefore reasonable to expect they should be well cared for. As far as we can judge, after careful inspection, the condition of pauper lunatics at Camberwell House is fairly satisfactory. They are not kept altogether aloof from the other inmates, but classed with them, as their condition seems to render expedient. The patients throughout the establishment, indeed, are apparently grouped rather on the basis of their previous history, their mental state, and their habits, than their present social position. Some of the superior class of inmates are accommodated in houses on the south of Camberwell-road, but even to these more luxurious residences we were informed pauper lunatics are not unfrequently removed when their condition and habits render the change desirable.

It is only natural to expect that the pauper inmates of a "mixed establishment" should be less carefully provided with comfortable and pleasing surroundings than those of a higher grade. This expectation is to some extent of course realised at Camberwell House; but searching jealously for the evidences of neglect, we find considerably less of which to complain than might have been anticipated. Indeed, there is practically no distinction between the condition of the lower class private patients and the paupers. The house has been, as we remarked, adapted, instead of being built, for an asylum. In some respects this is not a disadvantage, because, the residential property being of a superior class, and the cubic air space ample, there is a diversity in the distribution of day-rooms and dormitories, that can seldom be secured in a building planned and erected purposely as an asylum, but which certainly imparts an air of homeliness to an institution of this class pre-eminently desirable. Having said thus much in favour of the house, it is incumbent to observe that the property throughout stands urgently in need of repair. The system of painting, papering, and generally renovating large establishments piecemeal does not work well. The same remark applies to the matter of furnishing. Notwithstanding the very large outlay it would necessitate, we think Camberwell House, with the exception of the portion appropriated for the first-class inmates, ought to be refurnished. We notice that the Commissioners have from time to time complained of the bedsteads and bedding. Much has been done to improve the state of matters in this particular. New bedsteads have been provided, and gradually, perhaps too tardily, the old-fashioned and worn out furniture is being replaced by new. Many of the beds are supplied with hair mattresses, and it is pleasant to notice that in this and other improvements there is progress without stint, and what is accomplished benefits patients of all classes—the well-to-do and the poor impartially. It would, however, seem desirable that the business should be pushed forward with greater energy, and it ought to be supplemented by the provision of new fittings, better provision and appliances for bathing and washing, with greater attention to details—for example, the

placing of small filters for drinking water in the dormitories, which, with a few exceptions, are at present unsupplied. These are apparently trifling points to notice, but life is made up of trifles, and such petty affairs as the supply of clean towels, brushes and combs, clean tablecloths, properly appointed dinner services, and the like, compose the domestic system, and play no inconsiderable part in shaping and enforcing the "discipline" of an asylum for the insane.

Taking our impression entirely from what we have observed, we suspect a certain lack of discipline is the weak point in the *régime* at Camberwell House. The arrangements are, generally speaking, good, although the house and its belongings must, to some extent at least, be described as dilapidated. It is in the carrying out of the system there is possibly something to be desired. The method of dealing with the insane in force at this asylum strikes us as exceptionally humane in principle. The windows are nowhere barred, on the ground floor they are opened freely, on the higher levels they are securely blocked with a safe space for opening. The doors are not kept locked, and the patients wander in and out of the house using the pleasant grounds freely. Access to the bedrooms is allowed, and going unreservedly among the patients we were strongly impressed with their contentment and comfort. The system of liberty for walks on parole is largely adopted and so far with satisfactory results. Probably in few asylums do the inmates wear a less dejected appearance, at scarcely any house have we encountered a less number of complaints of detention. This is significant, for the patients are evidently under no terrorism and were unreservedly at liberty to state their grievances. The practical question is whether the same air of cheerfulness and evident sense of freedom might not be combined with a higher development of discipline.

To speak frankly—and it is no use visiting an asylum unless we can do this with impunity,—it is impossible to avoid a feeling that Camberwell House is just the sort of place where accidents, which are really accidents, and for which no superior officer can be held to blame, are likely to occur. There is too much easy-going, good-natured leniency on the part of some of the attendants, and a suspicion of peevishness—irritability that springs from lack of interest—on the part of others. The term "discipline" can only properly apply to *attendants*. A discipline of insane people is absurd in conception, and it must be either tyrannous or grotesque in application; but the officials of an asylum require to be ruled with an iron hand, withal it is cased in the velvet glove. We may be wrong, but the impression received is that this is not quite the case at Camberwell House. Dr. Paul and Dr. Schofield are perfectly candid; they profess little; but it is easy to see they take a keen interest in the welfare of those committed to their care. They do not, however, seem to be thoroughly well supported. There is a lack of vigour and acuteness evident in the service of the attendants. The Commissioners, we see, in their Report for 1875, just printed, express an opinion that the number of attendants is too small. The proportion is stated as about one to *twelve* patients. Considering that there are many extra servants who sleep in the rooms with the patients, and help to supervise them by day, the proportion is not exceptionally defective. It is in character quite as much as number, we suspect, that the fault lies. They may understand their business, but many little matters we noticed betoken scant personal industry and vigilance. In an asylum where so much depends upon the efficiency of the attendants—and we believe rightly so—as at Camberwell House, these officials need to be of a superior order. We do not mean to imply that they should be taken from a higher grade. Lady matrons and *lady-like* attendants are seldom any good, while effusively genial and gentlemanly male officers are a delusion and a snare. The sort of attendant needed at Camberwell House is a business-like, firm, and yet kind type of officer, to whom order is a pleasure, industry a delight. There *are* such persons, although their name is not legion; and we think that Dr. Paul and Dr. Schofield would do wisely to provide themselves with a few.

The private patients of course wear their own clothing; the paupers seem comfortably and decently provided. Some of the worst cases, and there are many troublesome, perhaps too many for the comfort of the establishment, appear more dishevelled than their mental plight would excuse. Here, again, the attendants are principally at fault. The duty is done roughly, without sufficient care. We did not see the patients generally at their meals; but the little we witnessed in the shape of feeding did not convey the impression that much care is bestowed on the way some of the food is served. The quantity is sufficient, and the system of allowing patients to be served from the joint is good, *if well carried out*; but we think great pains should be taken to make the assembling at table in any asylum an important and most orderly proceeding. It is, moreover, desirable, as we have hinted, that food should be served delicately. If anywhere dining should be an institution, it ought to be in an asylum for the insane. To return to our conjecture that accidents are not unlikely to occur—for to that these general remarks chiefly point—candour compels us to express a strong persuasion that the general diligence, watchfulness, and judgment exercised by the officials at this establishment are not adequate to the amount of liberty accorded. We did not detect that pervading air of order which is the secret of safety, and ought to be discoverable in every part of an asylum so administered down to the smallest detail, and we insist such order is compatible with the highest sense of liberty and the keenest pleasure the insane are capacitated to enjoy. The *principle* of the system adopted is excellent; its working out, in which the subordinate officials are chiefly concerned, is imperfect; we question whether it is safe.

TREATMENT.

The opinion that the treatment of insanity consists almost entirely in the daily management of the insane has been so repeatedly expressed in these reports, that it will scarcely be necessary to discuss the topic of treatment at Camberwell House apart. So far as the success of a practice may be inferred from the apparent state of the patients treated, the medical care bestowed on the inmates of this asylum is wise and effective. We are not inclined to attach undue importance to the sad occurrence of a case in which the discovery of fractured ribs and sternum was made after the decease of the patient. Those who have had much to do with the insane know how strangely pain is disregarded and injuries are masked by lunatics. Nevertheless, expert and watchful attendants should have been able to detect enough evidence of injury or disease to direct the attention of a medical officer to a patient in bad condition. It must always be exceedingly improbable that a physician, walking daily through the wards of an institution like this and speaking casually to his patients, should discover an injury of this nature, particularly in an excitable man. His attention must be specially called to the case; but an attendant *ought* to be aware of the condition of each patient under his or her care; hence the vital importance of securing the services of attendants able and industrious enough to observe. The testimony of the patient who spoke to the treatment of the deceased, Wimberley, by the attendants, may be trusted in regard to a question of fact. He talks well and clearly on general subjects, and takes a lively interest in passing events.

RESULTS.

The proportion per cent. of deaths on "average number resident" at Camberwell in 1875 reached 15·36; the same proportion for the year in "metropolitan licensed houses" generally was 10·89. The recoveries on the admissions of the year 1875 show 38·79 per cent. The proportion for houses of the same class generally was 32·24. So much, however, depends upon the character of the asylum population that little can be inferred from bare figures. We propose to deal with the general statistics of the five "Metropolitan licensed houses" together at the close, when the "concluding" portion of our report is resumed.

Dr. Paul, Dr. Schofield, and Dr. Pugh, the assistant medical officer, met us with great courtesy and frankness, and they have our thanks.

PLUCKING LIVE POULTRY.—A recent determination of the Society for the Prevention of Cruelty to Animals is to be heartily commended. This week notices were circulated in the metropolitan and other poultry markets by the Society announcing their intention of prosecuting all persons detected plucking the feathers off live poultry.

CENTRAL SANITARY WORK.

THE estimate of the skilled labour that is produced from the Medical Department of the Local Government Board is to be formed, not so much on the ground of its immediate results (as, for example, by the readiness with which the cause of an outbreak of disease is discovered) as from the mode in which the researches are conducted, and the lessons that they teach to others when the entire skein is unwound, and all its threads distinctly and clearly arranged to view. One of the best examples of this useful sort of instruction is included in Mr. Simon's last report, comprising an analytical history, by Dr. Buchanan, of the probable causes that led to the late epidemic of enteric fever at Croydon. This epidemic, as our readers are aware, has attracted a great deal of public attention, and has, besides, been frequently noticed, in a fragmentary way, in these pages. So that, as Dr. Buchanan remarks, "there is nothing in this report that will be new to the local authority or to its sanitary advisers." There is, however, much that is interesting and instructive, as showing the ways and means by which mischief may arise to militate against public health.

In referring to statistics of the epidemic, it is sufficient here to record that, as regards Croydon parish, upon which was the brunt of the fever, 1164 cases appear, in the returns of medical men, as having been attended by them in 1875. These cases occurred in 959 houses, and as there are in the parish of Croydon 11,526 houses, it follows that 83 per 1000 houses have been invaded by the disease. A total of 205 cases was returned from houses that had been already invaded, and apart from public institutions and schools, they were examples of particular houses having in them three, four, five, or six attacks of fever. Starting with the axiom that enteric fever habitually spreads through a community by means of the bowel-discharges from the sick, and by something of these discharges finds its way either into the air which people breathe, or into the water or food which they consume, the sewer system is naturally first referred to. The greater part of the excrement of Croydon parish is discharged into sewers, the larger number of which, serving 9051 houses, converge to an outfall where the sewage is used for irrigation. To the east, other sewers, serving 1405 houses, converge to a sewage farm. At the extreme north of the parish 506 houses drain into a separate system, and 564 houses remain, a few in the central, but the majority in the more distant parts of the parish, which have private cesspools or irrigation arrangements within their own precincts. The distribution of fever in 1875 fell mainly on the houses severed by the first two, or distinctively Croydon system, but in different degrees. It was observed that the circumferential parts of the parish have suffered less than the central parts on the same sewer system, and also that houses (by whatever system sewered) situated at the higher levels of the town had more fever than those in the lower levels. The original sewer system was formed altogether of pipes of small calibre that served for excrement slop-water and roof water only. As numerous stoppages were proved to occur in these pipes, the area of the latter has been from time to time enlarged, and some of the main sewers and the two chief outfall sewers are now of brick, twenty-four inches or upwards in diameter. Some are on the "back system," and others run under the public roadway. In the original plan commenced in 1851 special provision was made for keeping the ground water down to a lower level than previously, so as to prevent flooding of the lower parts of the town, and it was also intended that no ground or rain-water (except that from the roofs) should enter the pipe sewers. But in time the practice obtained of sending the drainage of roads into these pipes so as to overcharge them, thus necessitating fresh arrangements for the disposal of the surface water. The gradients are in some places slight, in others steep; means of ventilating are provided by shafts in the roadway, and there is a contrivance for flushing the sewers, which consists of a junction between the water-main and the sewer, allowing a considerable quantity of water to be discharged upon opening a sluice cock.

The house drainage is by four and six inch pipes in uninterrupted communication with the public sewers. In a very few houses only is there any trap in the horizontal part of the house-drain, but attention has recently been directed to disconnecting sinks, cisterns, wastes, and bath discharges, and the watercloset pipes are more or less ventilated by means of special pipes carried up beyond the roof, which latter serve also to some small extent to ventilate the public sewers. In examining the efficiency of the sewerage system it appeared that in the flatter parts of the town some sewers are known to be in bad order, and cannot be kept clear, that the flushing arrangements do not permit the whole interior of a sewer to be thoroughly washed, and that the public sewers are inadequately ventilated, intervals of from 120 to 250 yards existing between the ventilating shafts in a roadway, these shafts having curves, or being partially blocked by charcoal trays. The efficiency of the house drainage is marred by defects of by no means an obvious kind, consisting of hidden cracks in pipes, overflow-pipes going into soil-pipes, and ventilation-pipes zigzagged, so as to prevent any air current through them, or opening near to some window. There appeared to be no doubt that in a very considerable majority of the Croydon houses that have had fever, drain-air charged with infection from the common sewer of the town had had the opportunity of entering the houses. Dr. Buchanan says—"There can, I think, be no doubt that the chief way in which enteric fever spread last year in Croydon was the most direct and commonplace way of all—namely, by the escape of infected air from the sewers, and its inhalation by persons susceptible of the disease." Small and ill-ventilated sewers are pointed out as the cause—as in Rugby, Carlisle, Chelmsford, Penzance, and Worthing. For if the contents of small sewers do not flow away with great rapidity, leaving the sewer clean and free from deposit, they fail in accomplishing their primary object, and so far are inferior to the large drain, because the air of a small sewer is liable to be under far greater pressure than that of a large one, and so abundant ventilation is in the former case specially necessary. The inspector thus summarised the considerations of the drainage systems:—"While I admit that for the most part the sewers of Croydon are well adapted for the removal of liquids and solids, they appear to me to be adapted, when infected by fever excrement, to facilitate the passage of infection into the vicinity of houses. The air of the sewers is, as it were, "laid on" to houses; it is arranged that every house-drain and every house soil-pipe shall contain, up to the very wall of the house, and up to the very trap of the watercloset, the common air of the Croydon sewers, not simply charged with impurities it may receive from the particular house, but charged also with any dangerous quality that it may have brought from other houses; for hardly anywhere in Croydon can there be found an arrangement for severing the sewer-air from the air of the house-drain. So that whenever drain-air has entered a house, no matter by how inconspicuous a defect, and no matter whether it has given rise to stink or not, it has been the air of the common sewer, and that was, throughout 1875, charged to an intense degree with the infection of enteric fever."

In considering other methods of distribution of the fever, the milk-supply of course was examined into, particularly with relation to sewage farms, but no grounds exist for suspecting that milk played any part in the epidemic.

The influence of water would of course be very fully considered and practically ascertained. A synopsis of this part of the inquiry shows that no appreciable impurity exists in the Croydon wells, and that no importance can be attached to impurities that may have had access to the water at the reservoirs. The chemical evidence, again, furnished very exhaustively by Dr. Dupré, shows the water to be of a most pure class. There is, however, indubitable evidence to the effect that polluted air, as well, probably, as polluted matter, frequently finds its way into the house-service or near the house-service. Some very interesting evidence in connexion with a school is given on this point, which shows that if last year any infectious matter had entered the water-main in the house-service of the school, its distribution would have been exactly the distribution of

the fever. The history, however, is plainly that of contamination in a local service, not of unwholesome quality in the total water-supply of the town. Dr. Buchanan says: "During my visit, for experiment sake, a common house-tap was connected with a pan containing solution of burnt sugar, enough to colour some thousand gallons. On the ordinary night-intermission of supply, the whole of this was straightway sucked into the pipes, and, except from one neighbour, was no more heard of. It is on record that a few years ago bloody water came from the main-tap of a house next to a slaughter-house." The evidence indeed is overwhelming that some very awkward relations exist between sewers and drains on the one hand, and water-pipes on the other, which the intermissions of service tend very materially to increase, though experiments made during the progress of the inquiry went to prove that foreign matters may enter pipes full or partially full of water, if any sort of aperture exist. "In order, therefore," says the inspector, "to obtain assurance that the water or pipes shall not become dangerously contaminated whenever the pipes happen to leak, it is necessary that water-pipes should everywhere be kept away from all relations with sewers and drains." Although it appeared that the fever affected a larger proportion of houses within the water area than it affected within distinctively sewer areas, there is reason to believe "that sewer influences as such operated more on the central than on the circumferential parts of Croydon sewer areas, and this intenser operation has necessarily been within the water area, since the water area comprises the more central parts."

The advice given by the inspector need not be recapitulated here, because the subject has been already referred to in these columns. Dr. Buchanan was aided by local help of a kind specially intelligent and valuable, and we recommend this report to the attention of all health officers as probably the most instructive that has yet come under our notice from the Central Department.

HEALTH STATISTICS OF ENGLISH WATERING-PLACES.

THE table giving the mortality in the districts and sub-districts containing the principal English watering-places during the spring quarter of each year, which now forms an annual feature in the Registrar-General's report for the said quarter, is of great value in enabling us to arrive at a comparative estimate of the sanitary condition of our health resorts. The spring quarter is selected for this purpose because it is the season when the watering-places are most free from visitors, and consequently the natural death-rate can be most fairly estimated. The report, too, is published at an opportune time, when people are leaving town for the seaside, and thus it is possible to consult the latest information respecting the sanitary condition of the place they intend to visit before making a definite selection. For the purpose of easy reference we have compiled a table, taken from the Registrar-General's reports, giving the total death-rate and mortality from zymotic disease at twelve of our principal seaside resorts during the spring quarters of the last three years.

	Total Death-rate.			Zymotic Death-rate.		
	1874.	1875.	1876.	1874.	1875.	1876.
Whitby	20·3	24·2	19·5	1·0	3·8*	2·5
Scarborough	15·5	15·3	15·4	1·3	1·4	0·7
Yarmouth	21·9	17·5	15·0	7·1†	1·8	1·2
Lowestoft	13·8	17·8	12·4	1·7	1·7	1·4
Margate	21·1	21·7	13·3	2·6	1·7	0·2
Ramsgate	13·6	16·0	20·7	0·6	0·7	4·1‡
Dover	17·7	14·6	16·3	1·7	0·5	1·1
Folkestone	20·5	23·0	19·8	2·6*	3·5§	0·4
Hastings	19·5	20·6	16·8	2·8‖	1·0	1·0
Eastbourne	17·6	17·3	18·2	1·1	4·0*	1·5
Brighton	16·6	17·8	21·0	1·7	1·4	2·0
Worthing	12·9	19·6	15·5	1·0	0·3	1·6

* Chiefly due to whooping-cough. † Outbreak of scarlet fever.
‡ Chiefly due to measles and scarlet fever. § Chiefly due to measles.
‖ Chiefly due to measles and whooping-cough.

The above table is of considerable interest, and on glancing over it several questions occur to us. Why should the total death-rate at Whitby be always considerably higher than that at Scarborough? Again, how is it that Lowestoft, with a low total death-rate, has a steadily high mortality from zymotic disease? On referring to the tables of the Registrar-General for an answer to the latter question, we find that most of the deaths in this class at that place are referred to the head "fever," or, in other words, to typhoid —pointing, we think, unmistakably to some defect either in the drainage or water-supply. Margate has steadily reduced its death-rate in the zymotic class; we hope this indicates some improvement in its sanitary arrangement since the report of Dr. Gwynne Harries to the Local Government Board in 1873 on its extreme deficiency in this respect. The increase of mortality at Ramsgate has been fully dealt with in the report of our Sanitary Commission in THE LANCET of last week. It will be seen that Dover stands exceedingly well both in respect of its total death-rate and of that of zymotic disease.

Valuable as these returns of the Registrar-General undoubtedly are, we think that more complete information would be afforded if, in addition, the death-rate from infantile mortality were subjoined to the return for the spring quarter, and if a table showing the annual death-rate per 1000 from diarrhœa during the autumnal season at the chief watering-places were published in the report of the third quarter. The latter ought to be particularly instructive, if diarrhœa is to be regarded as the result of unfavourable sanitary conditions, and remotely one of excrementitious origin; we should then be able to note more accurately what towns fail in respect of drainage, water-supply, and general sanitary arrangements, under the pressure of the extraordinary work thrown on them at that period of the year. We have endeavoured to arrange such a table, founded on the returns of the registration subdistricts for the autumn months of the years 1874 and 1875:—

*	1874.	1875.	Average for two years.
Eastbourne	0·2	1·5	0·8
Folkestone	1·7	0·7	1·2
Dover	1·4	1·4	1·4
Hastings	1·6	2·3	1·9
Scarborough	1·8	2·5	2·1
Worthing	1·6	2·9	2·2
Whitby	1·0	3·5	2·2
Ramsgate	2·3	2·5	2·4
Lowestoft	2·5	3·0	2·7
Brighton	2·6	3·0	2·8
Margate	4·8	1·6	3·2
Yarmouth	2·1	7·3	4·7

* The annual death-rate per 1000 in the autumn quarter from diarrhœa for London was in the two years 2·7 and 2·5 respectively.

It will be observed, as in the table showing the total and zymotic death-rate, Dover stands well. Margate has reduced its mortality, though the rate in 1874 was so excessive as to place it amongst the lowest on the list. Lowestoft again shows badly in this table. We can partly excuse Yarmouth, Margate, Ramsgate, and Brighton for their high death-rate from diarrhœa on account of the nature and condition of the majority of their visitors; but Lowestoft has the credit of being an extremely fashionable watering-place, with a select visiting *clientèle*; the high death-rate therefore, both from diseases of the zymotic class and from diarrhœa, makes us suspect that the sanitary conditions are anything but perfect.

THE Burton-on-Trent Guardians have, in consideration of the great increase of the population within the last few years, increased the salary of Mr. John Hamilton, the medical officer for the Greeley district, from £50 to £80 per annum.

THE LANCET.

LONDON: SATURDAY, AUGUST 26, 1876.

ASSUMING that the cause of death in the case of the late Mr. C. T. BRAVO was poison, did the deceased take it wilfully to destroy life, or with some other purpose? Before the first hypothesis could be accepted, it would be necessary to adopt one of three presumptions: either he must have been ignorant of the nature and effects of the drug, or it was the only agent of self-destruction within reach, or he acted under impulse without pausing to think, perhaps careless, of the anguish he was bringing upon himself. The first is untenable for an instant. He was a barrister, and, without crediting him with an unusual amount of professional knowledge or acumen, it is only reasonable to suppose he was fairly well acquainted with the properties of a poison so widely known and graphically described in works as familiar to legal and medical students as TAYLOR'S "Medical Jurisprudence." It is remarkable that little or no attention seems to have been bestowed on the books and papers at Mr. BRAVO'S chambers. It came out in evidence that he had not recently been attending the Courts, and if he had *meditated* suicide, as some theorists appear to think, traces of sinister reading or research might have been discovered. As no evidence of the kind was produced—we do not even know what books Mr. BRAVO possessed,—it is only fair to assume that the implied ignorance under which he must have acted, if he *selected* antimony as a poison, did not exist. The notion that the particular poison was forced upon him because no other was within reach is impossible in face of the fact that both laudanum and chloroform were found in his bedroom, and, as he had retired for the night and was secure from intrusion, nothing could have been easier than to have sought death by an overdose of either of those agents with whose effects he was conversant. The idea that he might have taken it under impulse is dispelled by the same circumstances, because it would have been much less trouble to uncork one or both of the bottles and swallow the contents than to dissolve a deadly portion of tartar emetic. We must therefore dismiss the hypothesis that this man took antimony "wilfully to destroy life." The more closely the probabilities are scrutinised, the more conclusively will such a method of clearing up the mystery seem to be impracticable.

This brings us to the certainly more reasonable presumption that the antimony was not taken to destroy life, but with a totally different purpose, although as a matter of fact it killed. The theory which commends itself to many minds is that this poor man, having, in a moment of uncontrolled passion or chagrin, taken laudanum or some other poison, mixed and took an overdose of tartar emetic, intending only to produce vomiting, and thus relieve himself of the drug with which he believed himself to be already poisoned. Let us see how the story told in evidence accords with this presumption. The facts in its favour are the following:—It is certain he desired to promote vomiting when he called for hot or warm water. The circumstance of his vomiting out of window, instead of using a basin, is consistent with the theory that he did not wish the poison to be detected, probably expecting and hoping to recover; although it is more likely he went to the window, feeling faint, and vomited accidentally while there. If he took the antimony as a remedy to free himself from some poison previously swallowed—for example, laudanum or chloroform,—he may have regarded it as a *remedy* throughout, and so, when told that laudanum would not account for his symptoms, have denied that he took any other *poison*. Thus much may be said in favour of the theory of accidental poisoning by antimony taken as a remedy to rid him of laudanum or chloroform; and the asseveration of Mrs. COX that she smelt chloroform would agree with the possible contingency that a dose of chloroform, taken perhaps in water, and thrown off the stomach at an open window, might not have been recognised by those who arrived later on the scene. There is another incident of the case which it is fair to say likewise accords with this method of accounting for the occurrence. Mr. BRAVO was undressed, or rather dressed for the night, and if he had not actually retired to bed, was prepared to retire. Supposing therefore he had taken a dose of laudanum or chloroform, and thrown himself on the bed to die, after the manner of many self-murderers, he may have been struck with remorse when the first feeling of drowsiness came over him, and, springing out of bed, taken the tartar emetic, and rushed to the window. It is scarcely probable a dose of the emetic would have acted so quickly, but the time which elapsed between his going to his room and calling for hot water is not well defined. This is the hypothesis, and it is clearly one that deserves to be weighed; but we are unable to accept it, at least without stronger testimony than the *probabilities* which have been indicated can be held to furnish.

There is no difficulty in supposing that the tartar emetic may have been in Mr. BRAVO'S possession, perhaps procured, as it has been conjectured, to cure his wife of drinking too much wine; and it is possible that, in his anxiety to counteract the effect of the opium, he may have thrown the whole packet into a glass of water, and drank it off, casting the paper out of the open window, and thus leaving no trace behind. Were the leads, the gutters, the adjacent grounds, and even the drain-pipes, thoroughly searched for wrapper, box, or bottle? Nevertheless we think the following considerations, conflicting strongly with the theory that the antimony was taken as an emetic, cannot be overlooked. Had the illness been so caused, when it was explained to the patient, after his recovery from the collapse, that he was dying of poison, and that poison not laudanum or chloroform, he would have been anxious to discover a cause for his pain and danger, seeing he had resolved to live. Mr. BRAVO must have been perfectly well aware that neither laudanum nor chloroform could occasion the acute and prolonged agony he was suffering; and having taken tartar emetic knowingly to counteract the effects of the narcotic, he would have told some one of the medical friends by whom he was surrounded, confidentially the circumstance. There was at least one gentleman there to whom he could have spoken freely. While he thought himself dying of the drug he

is supposed to have taken *as a poison* his mouth might have been sealed; but when he became aware and was assured that it was the *remedy*, not the poison, that was killing him he would have explained. His scant reference to the cause of his illness, coupled with the solemn denial of any knowledge as to how it was caused, is incomparably more consistent with genuine ignorance, or possibly a suspicion he scarcely dared to formulate, than with the theory of a secret knowledge which shame and remorse impelled him to conceal. This man, it is alleged, took the antimony to produce sickness. When *sickness* became the leading and most agonising feature of the disease, he would in that case have felt that the tartar emetic was the cause, and, we believe, avowed having taken that drug, if not to Dr. JOHNSON or Sir WILLIAM GULL, to his cousin Mr. ROYES BELL, or his old friend Mr. HENRY SMITH, both of whom had his confidence. What those who adopt this theory seem to us to forget is the fact just indicated—namely, that the leading and most acute symptom of his illness was the vomiting, which according to their hypothesis had been intentionally induced, the patient being conscious, and knowing perfectly well that this suffering was not, could not be, due to "the poison"—i. e., the laudanum or chloroform.

There are, moreover, objective as well as subjective reasons why this hypothesis cannot be received, and perhaps they are the more weighty of the two. We have said the time which elapsed between the retirement of Mr. BRAVO for the night and his calling for hot water was not well defined. It is, however, hardly possible to believe that a dose of tartar emetic taken when he had gone to bed, or just before going, would have operated so soon afterwards as the act of vomiting occurred, more particularly if the stomach was previously narcotised with opium or chloroform. It is certain he vomited out of window before he became insensible, and the matter then vomited contained a large proportion of antimony, even when examined after the fluid part had been washed away by the rain. The story as collected from the several witnesses and the circumstantial evidence agrees better with the theory that it was to promote vomiting, with the view to getting rid of the matter thrown up on the leads—that is, the antimony—he called for warm water. This is the point: looking to the fact that he was vomiting and throwing off large quantities of antimony when he first called for hot water, the matter *then* thrown off is more likely to have been the poison than the remedy. Being anxious to recover, he would scarcely have taken antimony and waited quietly ten minutes or a quarter of an hour before he asked for hot water. He would have called "FLORENCE, hot water, hot water," as soon as he had changed his mind and resolved to take measures for his recovery. The history of the case throughout would have been different. We should have had Mrs. COX in the room, and her mustard draught administered *before* the vomiting, or at least before the ejection of matter containing the *emetic*.

When discussing the "cause of death" we directed especial attention to the significance of the fact that immediately the patient received help from the lay persons within call, that help took the form of a powerfully stimulating emetic, although he was *already vomiting and faint and cold*. It is further remarkable that camphor was sent for and strong coffee prepared. The women of this household were homœopaths; chests of the "system" were found in each room, and we hope duly and throughout examined, because it should be known that some of the so-called "innocuous" remedies of the homœopaths are in fact powerfully energetic solutions of carefully prepared drugs, potent and dangerous. One of the most recent and best-known of the manuals—RUDDOCK'S Text-book,—under the head "Poisoning," sets out 135 drugs, all except 17 of which are said to have antidotes. In no less than 46 out of the 118 the antidote is *camphor*. The same remedy is recommended for an overdose of the medicines mentioned in the work indiscriminately. The alternative "treatment" consists in the administration of strong coffee. HERRING'S "Domestic Physician," another volume familiar to the devotees of the "infinitesimal" system says, "When the poison is unknown coffee is the best thing you can give." Camphor also is strongly recommended. LAURIE, and the authorities generally, follow suit. The particular precept in regard to which failure is the more significant, seeing that every other direction was so implicitly obeyed, is that which enjoins the precaution to save all the matters vomited. The directions on this point are rigorously precise, and it is the more remarkable that they were not observed. We have not urged all that may fairly be said against the hypothesis of poisoning by antimony taken as an emetic to void some other poison, but this will suffice.

Was the poison taken accidentally? This question scarcely requires discussion, because the drug is not one likely to be lying about in a house, or to be sold by mistake for some harmless element of food or a condiment. The poison is more closely connected with the history of homicide than of suicide. It is by no means difficult to procure. Without possessing the knowledge necessary to write a prescription, or the audacity to personate a medical practitioner, any man or woman may walk into a chemist's shop and procure a few grains of the drug either as an emetic or a fever powder. In nine cases out of ten a half-dozen such powders might be purchased without suspicion for domestic purposes, and a very few investments of this character would result in the acquisition of quite as much tartar emetic as Mr. BRAVO took, assuming he actually took the antimony in the form indicated, which is not an ascertained fact. If, as we shall presently suggest, it was swallowed some considerable time before the vomiting occurred, it may not after all have been the potassio-tartrate of antimony alone with which he was poisoned. It is in evidence, on the testimony of witnesses who, setting aside the general value of their statements, do not certainly appear to be in close accord with respect to details, that, after his return to the Priory on the fatal afternoon—we use that phrase advisedly—Mr. BRAVO was, to all appearances, in his usual health. On his return from a ride which would seem to have been taken suddenly, on the impulse of the moment—and, if we are to accept the evidence of his widow, after he had just announced his intention of going into the garden to smoke,—all the appearances were altered. He seemed in pain, jaded, and thoroughly upset. The change of temper has been attributed to the receipt of an irritating letter from his father; the physical

weariness, the stiffness, the indications of cramp, to the circumstance that the cob he was riding bolted with him on Mitcham Common. Neither of these explanations is satisfactory. Great stress was laid at the inquest on the time likely to elapse between the administration of antimony and its effects as an emetic. The interrogations on this point proceeded on the assumption that it was tartar emetic pure and simple the deceased took. That, however, was possibly not the fact. The drug has long gone out of fashion as a remedy, and, like most discredited medicines, its nature and uses seem to be strangely forgotten. Even great authorities fail to recognise how readily and thoroughly "Antim: pot: tart:" can be combined with almost anything not very strongly astringent. The delicate and subtle chemical properties recently ascribed to the medicine were unperceived by the men who daily prescribed it, in and out of season, with all sorts of so-called 'incompatibles," twenty years ago. There must surely be many practitioners who can recall a large experience of the use and abuse of tartar emetic, and to these it will be unnecessary to explain that no real obstacle exists to its combination with narcotics and other agents by which its action would not only be delayed, but, by accumulation, even intensified. We remarked, when speaking of the post-mortem appearances, that the concentration of the injury on the lower portion of the small and the large intestines might be in some measure due to the form in which the poison was taken. It was by a combination of the nature now indicated we alluded. The obvious rejoinder to this suggestion will be that the earliest matter vomited contained the largest proportion of the antimony found. That does not affect the issue. The chemical reaction which denoted the presence of the metal could not reveal the condition in which it existed in the vomit. The process by which it was extracted, of course, changed the previous state. If the combination in which it was given had been such as to delay its action, the chances are in favour of the presumption that some portion of the antimony would be absorbed slowly with the food taken at the next meal, while a portion would pass on towards the lower intestines undisturbed, and perhaps more remain slowly dissolving in the stomach. If this was the fact, the vomiting which occurred would be the result of the specific action of the emetic produced after its absorption had begun. It would probably also be preceded by symptoms due to the poison with which the antimony was combined, and to the depressing effects of the antimony itself. We do not contend that this is an exact or even approximately correct description of what occurred. There may have been no other poison administered with the antimony, although the symptoms described by the medical men first in attendance, coupled with the statement of Mrs. COX, suggest the operation of another agent.

The question how and by whom was it given? is obviously one that cannot be explicitly discussed in these columns. Meanwhile it is possible to indicate weak points in the case to which some of the pains and ingenuity devoted to digging up nasty details might with advantage have been directed. Was any endeavour made to trace the doings of Mr. BRAVO on the afternoon of the day when he was poisoned? A gentleman probably not unknown in the neighbourhood might surely have been tracked, more particularly if it be a fact that the cob he was riding ran away with him. It might help to dispel the mystery of this melancholy case could the places visited, the persons seen, the refreshment partaken of after his return from London to Balham—apparently in his usual spirits—be ascertained. No one reading the evidence carefully can fail to be impressed with the singular vagueness and haziness of this part of the case. The detective police have either something in reserve, or they exhibited less than their accustomed assiduity in working out an important and obscure link in the story. It was assumed rather than demonstrated that nothing taken by Mr. BRAVO by way of food or drink, at Balham, between meals, could have concealed the poison. There is on this account the greater reason why all he ate and drank out of the house should have been investigated. If the poison was not taken at the Priory, possibly it was taken elsewhere. Accepting Mrs. BRAVO'S account of the matter, for a moment, a most extraordinary change in his plans and behaviour must have occurred suddenly after his return gratified, from obeying the direction, "Go up and see, Charlie, what I have got for you; I put them in your bedroom." The articles referred to were, as we know, tobacco of the best quality, probably cavendish, and a bottle of hairwash, bought as a present at the co-operative stores. It was after this little episode the change took place. He was going to have a smoke in the garden, but instead he set out on a long ride, and, it is alleged, "the cob bolted." When next seen, he appears to have been in pain of body and upset in mind. We cannot pursue the subject further. The Balham mystery is not solved, and we greatly fear that the world has not heard the last of it, sad and sickening as the story in all its aspects has proved.

THE London season which is just closing has witnessed an unusual exertion of the power and influence of the medical profession. It is not often that the representative men in our calling really obtrude themselves in the discussion of public questions. They are too gravely and deeply occupied for that. There is an impression, indeed, that we are destined to have more influence in the future than we have had. Mr. GLADSTONE has lately given it as his opinion that, in comparison with other professions, ours will become increasingly important and influential. Unhappily it is not so yet. The world is not wise enough to perceive the importance of the knowledge represented in the science and art of medicine in relation to the happiness and welfare of communities. Short of occasions of actual disease, it is slow to take medical advice, or call for medical aid; and there is this peculiarity about medical teachers—they are not preachers. They do not go about trying to impress gaping crowds with the importance of the truths they have discovered. They have to do chiefly with individual men in circumstances essentially private and personal; and they are aware that society will have to be much more highly educated than it is before it can appreciate medical truth as applicable to social and political questions. It is a sound instinct on the part of the most thoughtful and authoritative members of the medical profession that makes them chary of giving public advice on questions deeply affecting public health and morals. We are still in that stage of civilisation

in which medicine outside the sick room is regarded as rather out of place. Those six or seven gentlemen who are now enjoying a very absurd and inglorious piece of martyrdom in York Gaol—the Keighley guardians—in an address to the electors of Leeds, represent English citizens as governed by doctors. Unhappily for English citizens they are not governed by any such good guides. Fortunately perhaps for members of the medical profession—certainly not for any other class—society shows still a considerable disregard of those truths known only to medical men, and by them imperfectly, which really must be respected if men are to live happy and healthy lives. We should have to find some other calling if society were living in Dr. RICHARDSON'S *Hygeia*, and we should be in the position of the physicians of Weymouth, of which ARBUTHNOT said, "Weymouth is such a healthy place that physicians can neither live nor die there."

But the modesty of medical men and their reticence on questions (more or less medical) affecting the increase of knowledge, and the advance of civilisation, have been a little overdone. This year an agitation against vivisection roused the medical body to a protest which is refreshing, and which has been very effective. The Government, misled by the ardour of a class of people who mistake fanaticism for humanity, brought forward a Bill which would have placed the best experimenters in physiology and therapeutics under police supervision, and would have hindered physiological observation, as in earlier days, by people of corresponding intelligence, anatomical and pathological observations were hindered. The distrust of the profession—the profession of all others representative of enlightened humanity—was too pronounced to be overlooked. Very influential persons tried to create a prejudice even against hospitals as possibly harbouring some monster that would be prepared to save a man at the expense of a rabbit, or even a dog. This roused the profession to a vindication of itself and its methods. Every representative body and every representative man did his duty. The Medical Council spent three or four days over a memorial to the Government—a fact which Mr. CROSS mentioned in his speech on the Bill. The leading physicians and surgeons, the busy baronets who have no leisure, found time to make very strong personal representations on this subject to the Government. The press and Parliament felt that Government in a weak moment had forgotten the claims of the medical profession to be trusted in point of judgment and mercy more than its assailants. And everywhere the profession rose in public esteem for its intelligence in perceiving the respective value of the life of man and animals, for its strong and dignified self-assertion in a moment of aspersion, and for demanding that British legislation should be saved from the stigma of doing anything to hinder the knowledge of life, or of the means by which it can be prolonged. We happen quite accidentally to know that at the moment when this agitation against the cruelty of doctors was at its height a leading physician made it his care to see that in these droughty days the sparrows on his premises were supplied with water. This by the way. The point we wish to bring out is that the profession took a great deal of trouble through its corporations, through the Medical Council, through its societies, and through its leading members, to impress the Government and members of Parliament. And the second point is that all this trouble has had its reward. When we see what an impression the medical profession can make when it is united and in earnest, we are tempted to ask how it is that it is not more often united and in earnest. Are there not several questions on which, if the profession were so much in earnest and harmonious as it has been on this question of vivisection, an equally successful result might be obtained. Things are done by the Government which are almost incredible,—such, for example, as the recent abolition of the post of Medical Officer of the Privy Council after the office had been most fully justified in the eyes of Europe. And we have not heard of one protest from a college, from the British Medical Association, from those individual members of the profession who may be regarded by the Government as representing us all. The medical protest against vivisection has everywhere raised the profession in public estimation. Can we doubt that, had an early protest been made against the abolition of an office which represented above all others the relation of Medicine to the State, the office would still have been retained? It would be delicate, if not difficult, to say to whose unfaithfulness it is due that no such representation has been made, but it is greatly to be desired that our leading members and corporations should take far more pains than hitherto to vindicate medicine and its claims in high quarters.

EXPERIENCE of Splenotomy has done little hitherto to lighten the opinion of its gravity which our knowledge of the anatomy and physiology of the spleen suggests. It must still be regarded as one of those operations the hazard of which is almost prohibitory. In the hands of KÜCHLER, SPENCER WELLS, and KŒBERLÉ it has been unsuccessful. A break in the uniformity of the failure may serve to encourage those who, in spite of failure, still regard the operation as probably feasible. On the 18th July last M. PÉAN presented to the Académie de Médecne two patients on whom he had performed the operation with complete success. One of the cases was operated on in 1857, and subsequently presented to the Académie in good health. The second patient has just recovered. The details of the case and of the operation are of great interest The patient was a married woman aged twenty-four years. A history of miscarriages and dead children was strongly suggestive of syphilitic taint. A splenic tumour had been observed steadily increasing for eighteen months. In February the tumour filled almost the whole abdominal cavity; it extended to the pelvis and even to the right iliac fossa. Various symptoms, apparently secondary to the tumour, distressed her, and the abdominal pain was constant. The patient implored an operation, which was performed on the 25th of April. An incision was made along the linea alba from three inches above the umbilicus to two inches and a half above the pubis, and a corresponding incision was made through the peritoneum. The tumour was covered by the omentum; this was removed from below upwards, and pushed to the right of the tumour, beneath the right hypochondrium, and both it and the intestines were kept back by sponges and warm napkins. The

tumour had the characteristic reddish-violet colour of the spleen. It was seized at its lower extremity, and gradually raised within the lips of the wound, until it rested on the hands of the assistants who were keeping back the intestines. No other organ escaped. The gastro-splenic omentum was about three-quarters of an inch wide at the level of the hilus; it contained bloodvessels and enormous lymphatics. One splenic vein was the size of the index-finger. A wire ligature was passed round the whole pedicle, great care being taken to avoid the pancreas. The pedicle was then surrounded by sponges, and the spleen separated at the hilus by a single cut, being at the same time turned quickly outwards. About a quart of blood escaped in a jet from the spleen, but none fell into the abdomen; otherwise not more than thirty grammes of blood were estimated to be lost. No adhesions were met with. The sponges were removed, the great omentum spread out over the intestines, and the abdomen closed, the pedicle being retained between the lips of the wound. The progress of the patient was excellent. The febrile reaction was slight. Some blood appeared in the urine on the third day, but diminished and disappeared a few days later. The pedicle separated in a week. The patient's spirits were very good. Eighteen days after the operation she sat up, and a week afterwards returned home.

We congratulate M. PÉAN on so brilliant a success. It is to be remarked that the patient would appear to have been free from grave constitutional disease, such as leucocythæmia, from which some of the cases operated on were suffering, and which must very much have prejudiced their chance of recovery. M. PÉAN has shown conclusively that splenotomy must no longer be regarded as an operation absolutely mortal. A careful selection of cases may no doubt be necessary. In this case the morbid state of the spleen was one of simple hypertrophy, and the mental and physical condition of the patient appeared in every respect favourable.

Annotations.

"Ne quid nimis."

MEDICAL EDUCATION AT CAMBRIDGE.

WE quite agree with the remarks made by *The Times*, in commenting on a letter published in its columns by Professor Humphry, setting forth the advantages which the University of Cambridge offers for the education of medical students. But it was a pity that the writer of the article in question should have so misunderstood Professor Humphry's views as to represent him as advocating the pursuit of medical studies entirely at the University. There is, we are aware, a party at the University who strongly encourage such an idea; but Professor Humphry has always been consistently opposed to such a course. Both his letters to *The Times* were able expositions of the advantages derivable from the scientific training of the University; whilst he also indicated the desirability of bringing the London hospitals, the true fields for clinical work, into closer connexion with the University, so as to enable students to receive the advantages of both. We have repeatedly pointed out that Cambridge can never compete with London or Edinburgh as a medical school. Individual teachers like Professor Humphry and Professor Paget give it, no doubt, considerable repute, but it wants the backbone of young teachers to make it a successful school. And these it can never expect to attract; for what young surgeon or physician would be content to spend years in the drudgery of teaching, for the ultimate reward of perhaps a few hundred pounds a year from consulting practice? whereas, in London the same amount of work would be rewarded by as many thousands and a wider fame. But if Cambridge cannot compete with London in the matter of purely medical education, it can make the field of scientific instruction particularly its own. Instead of seeking, as at present, to establish a number of useless and petty professorships and teacherships in midwifery, medical jurisprudence, materia medica, pathology, &c., it would do wisely to increase the stipends of the existing professors of chemistry, anatomy, physiology, and botany; to establish thoroughly well paid demonstratorships in these subjects, open to everyone for competition; and, lastly, greatly to extend the laboratory and class-room accommodation in these subjects. If this were done, Cambridge might take the lead in English scientific teaching. The professorships in chemistry, anatomy, physiology, &c., would be regarded as prizes to be obtained only by the very best teachers. The well-paid demonstratorships would attract able men who would be glad to devote a few years of their life to teaching for the sake of the distinction it would confer on them, or the degree they might obtain during their stay at the University; whilst the laboratories and class-rooms might be made the envy and despair of rival schools. Such an opportunity for scientific work would be invaluable to men purposing to devote themselves to the higher branches of the profession, and the training acquired at Cambridge would be an admirable prelude to the practical clinical work at London. If the University, however, is desirous of extending the boon of a university education to the ordinary class of medical students it would best do so by shortening the present term of residence; permitting the student after two years' (instead of three) attendance on anatomy, physiology, and chemistry, to proceed to his degree on giving satisfactory proof that he had completed his practical studies in London. We believe such a concession would be highly appreciated by the profession. No time would be lost by two years' residence at Cambridge if the subjects taught were limited to anatomy, physiology, and chemistry, for these are subjects required for the primary examinations at the Royal Colleges of Physicians and Surgeons in London. A young man, therefore, might have the advantage of two years of university culture and training without entailing additional expense on his parents or loss of time on himself, supposing his powers to be hardly equal to the attainment of the standard required for the University degree. The present moment is a critical one for the University. She has the choice of either making herself the foremost seat of scientific education in the world, or of frittering away her money and energies on the establishment of poorly paid professorships in subjects for which she cannot furnish material for demonstration, and becoming merely a second-rate medical school. It is sincerely to be hoped that the University Syndicate will see fit to reject the report of the Board of Medical Studies, which advocates the extension of the teaching of purely medical studies, and devote itself entirely to the extension and improvement of scientific education. When the scientific teaching at Cambridge reaches its zenith it will be time enough to consider the propriety and wisdom of granting further facilities for the cultivation of purely medical matters.

ARMY PROMOTION AND RETIREMENT.

A CURSORY examination of the proposals of the Royal Commission on Army Promotion and Retirement brings to light one thing—viz., the different value that is put upon the services of a combatant officer as compared with those of an army medical officer. It is a limited service in either case; the commission of the combatant officer in the ranks of lieutenant and captain is together to be for a period not exceeding in the whole twenty years, and the commission for medical officers is for ten years, with the chance of being chosen—a small one if only six per annum be selected—for the higher ranks. Now, in the case of the combatant officer, who is younger on entering the service than the medical officer, and has his profession to learn instead of having acquired it, the retiring pension is £200 per annum, the commuted value of which, at the age of the retiring officer at the rate of 5 per cent., is £2648, while in the case of the medical officer who has served for ten years, or half the time, it is only £1000. The Commissioners, however, with the view of reducing the necessity for compulsion in the case of combatant officers, suggest civil employment and voluntary retirement, in the belief that there will always be a great many who, from being married, or from other reasons, are desirous of a fixed home, and would willingly make some sacrifice to exchange their regimental position for employment in some Government department. It strikes us that there will be great difficulty in providing anything like an adequate outlet for officers in this direction; still, in addition to the post of pay-masters and the telegraph service, there will be the militia and volunteer corps. We think that some inducements to retire of a similar character are required for army medical officers. There are a large number of posts connected with the Government for appointment to which previous army service might give a claim. Not to say anything of the value of some properly organised medical reserve, if appointments in the colonial service, to prisons, to the post-office, customs, and police, were held out as rewards to men with a reputation for energy and ability, there might be more inducements both to enter and retire from the public medical services of the country.

MR. MEYMOTT TIDY ON THE REMOVAL OF NUISANCES BY OXIDATION.

AFTER a prolonged and costly trial before Mr. Barstow at the Clerkenwell Police Court, a decision has been come to that a "dust shoot" of two or three parishes, including Islington and Clerkenwell, is not a nuisance. The result is discouraging to people who think that we are near a sanitary millennium. But it has been brought about by evidence which is more unsatisfactory than the decision. Mr. Meymott Tidy has given it as his opinion that noxious materials become innocuous in from twelve to twenty-four hours, and that noxious vapours do not extend more than fifty feet. Mr. Tidy was surpassed in his testimony to the benevolent processes of nature by which filth is rendered innocuous by Dr. Greenwood of Canonbury. Mr. Tidy only said that organic matter was oxidised. Dr. Greenwood assured the magistrate that "all vegetable matter would be absorbed in forty-eight hours." When a medical officer of health of one of the most populous metropolitan parishes speaks in this way of organic materials of two or three parishes shot down under the noses of a considerable population, it is time to ask on what grounds Mr. Tidy bases his opinions, which we venture to say are peculiar to himself, and perhaps Dr. Greenwood, Dr. Slater, Dr. Cotton, and Mr. John Alexander Miller. It is somewhat awkward for such theories as Mr. Tidy's that Dr. Glover, Mr. Cornelius, and others, saw on this "shoot" deposits of vegetable refuse full of flies, with a slight covering of ash, in a most active state of putrefaction, emitting vapours after the twenty-four hours of beneficent oxidation. Mr. Tidy's subordinate, Mr. Thomas Collis, contradicted himself as to the disposal of vegetable and animal matter, which, he admitted, did become so offensive as to require disinfectants. Two thousand loads of dust had been shot by Islington, and 2000 by Clerkenwell and other parishes. Mr. Barstow himself visited the shoot and expressed himself unfavourably about it, till he heard Mr. Tidy's astonishing evidence on the protective influence of twenty-four hours of oxidation and a distance of fifty feet. We commend these views and the magistrate's decision to the metropolitan medical officers of health. What inducement is there to public cleanliness if twelve or twenty-four hours of oxidation will make everything sweet? According to this doctrine, scavenging is a mistake and all our efforts for the removal of organic matter in a state of change unnecessary. A medical officer of health, according to it, is necessary, not to stimulate sanitary authorities to purify the area over which they have authority, but to lull them into a false security and to supply them with excuses for putting matter in the wrong place. It is not by such views of "oxidation" and "absorption" as those enunciated with such confidence by Mr. Tidy and Dr. Greenwood that our sanitary legislation has either been gained or can be justified. The owners of property in this case may be too poor to try the question at stake, but it cannot rest here. And the sooner these fanciful notions—oxidation and absorption of filth—are disregarded by magistrates and judges, the better for the public health. The view of practical sanitarians is that in large towns there is no oxygen to spare for the oxidation of rotten fish and decaying vegetables.

THE SCOTTISH COMMISSIONERS ON "GENERAL PARALYSIS OF THE INSANE."

THERE is a freshness, we had almost said a simplicity, about the annual reports furnished to the Home Office by the General Board of Commissioners in Lunacy for Scotland, which makes them vastly interesting reading, supplied opportunely when the silly season sets in, and people who have been all the year round knocking their heads against hard facts, probably find it a relief to come in contact with fallacies. We pass by such *naive* conjectures as "*Perhaps* the large increase in the admission of pauper patients during the year 1875 is to some extent the outcome of the grant from Government towards the maintenance of pauper lunatics," and "many things must influence the death-rate in particular asylums, but it appears to be *satisfactorily established* that the difference depends in *some* measure on the varying proportion of old-standing to recent cases in the population of the different asylums." The Scottish Commissioners are quite right. Parochial authorities are more inclined to look upon troublesome paupers as lunatics now that it saves money to send them into asylums; and old-standing cases, if the Commissioners mean standing cases among old people, are prone to end in death. If, however, the Commissioners mean that long-standing, or chronic, cases produce a higher death-rate than recent cases, the reverse is the fact. It is impossible to determine what they mean, and we give it up. Meanwhile, what can any person out of an asylum make of the following sage observation? Speaking of private patients, among whom the "movement" is "more active than among paupers," the Commissioners say, "The admissions and discharges constitute a larger proportion of the number persistently under treatment." How can a discharge, by which we presume is meant a person or case discharged, constitute any part of a "number

persistently under treatment"? With the thermometer at nearly 100° in the shade it is too bad to introduce conundrums into what professes to be a sober report. The Commissioners are, however, evidently in earnest, and mean to do everything in their power for the public enlightenment. With this view they have been investigating what is "known as general paralysis of the insane." It was the more commendable to select this particular topic for study, because it appears that during the last ten years of their official cognisance only 524 deaths from general paralysis have been reported to the Board. Ninety of these cases the Commissioners decline to say anything about, as the cases were private cases, and "the number is too small to afford a *valid* basis of calculation." We were not aware that, for the purposes of what the Scottish Commissioners are pleased to call a "medico statistical inquiry," general paralysis in a private case differed in any important particular from the same disease occurring in a pauper. Of the 434 paupers who died of this formidable malady, the Commissioners could speak more confidently if they were only sure what general paralysis actually is, or if they could bring themselves to believe that the medical men of Scotland understood it. With the proviso that the designation general paralysis may be "rather descriptive than nosological"—in short, that it may mean paralysis widely extending over the body, or organic disease accompanying senile dementia, or, in fact, anything within the range of maladies affecting the insane, the Commissioners proceed to expound their researches. They have classed the 434 pauper patients according to the parishes to which they were chargeable (!) and having done this they "find the correctness of the opinion" that "general paralysis of the insane is ..... of most frequent occurrence amongst town populations, though no definite facts have been hitherto brought forward to establish this opinion." The deficiency has, of course, now been supplied by the labours of the gentlemen producing this wonderful blue-book. Seriously, is it not somewhat puerile to put such feeble prattle on paper and call it a Report?

THE CAUSE AND TREATMENT OF RICKETS.

DR. NORMAN MOORE, in a thesis for an Act for the degree of M.D. in the University of Cambridge, has made some interesting observations, which are evidently the result of much study and consideration of this subject. The author accepts Sir William Jenner's definition:—"Rickets is a general disease, manifested by certain lesions of the structure of the bones," and then proceeds to give a short account of the disease, drawn exclusively from his own observations. The earliest age at which he has seen rickets is ten weeks, the latest at which it seemed to begin twenty-two months. It most often attacks children while cutting their teeth, or just before they cut them, and usually causes pain at its commencement. It is a disease of indefinite length. Rickets rarely causes wasting. Out of 200 cases tabulated by Dr. Moore, there was wasting in eight only. From the observation of these 200 cases, he is led to the opinion that the main cause of rickets acts through the digestive system, and is improper feeding. The child is suckled too long or fed too soon. Bad air, want of cleanliness, ill-nourished parents, may no doubt be presumed in some of the cases, but by no means in all, nor even in the majority; for the out-patients of the Children's Hospital in Great Ormond-street are often better to do than those of other hospitals. The cause of rickets is not to be found in the wealth, the poverty, the nationality, the age or diathesis of the parents; nor can it be considered a result of previous acute or inherited disease of the children. Dr. Norman Moore adds an argument from animals. He says that Dr. Harris, of Gonville, and Caius College, had a few years ago some beagle pups which were fed soon after birth on dog biscuits. Their legs were noticed to become bent and their joints enlarged. There were well-marked beads to be felt on their ribs. The administration of cod-liver oil cured them. A somewhat similar result followed in the case of a young hen-harrier, taken by our author from its nest in the heather, in the summer of 1874, brought to London, and fed on beef, with now and then a bird. It ceased to thrive; did not emaciate, but became feeble. Its leg-bones were soft, and after death could be slightly bent. The first point, of course, then, in the treatment of rickets is the regulation of the diet. If past eight months old, the child must be weaned; if younger, and fed on solids, it must be given a nurse or fed on cow's milk mixed with a little water, or preserved milk. The next point is the administration of cod-liver oil. In treating the complications of rickets, the treatment should be general, and not symptomatic. Laryngismus stridulus is pointed out by our author as pre-eminently the nervous disorder of the rickety constitution, just as chorea is the nervous disorder of the rheumatic constitution.

A MEDICAL MAN CHARGED WITH EXPOSING A SCARLET FEVER PATIENT.

A SOMEWHAT remarkable charge of breach of the Public Health Act, made against Mr. James Bisshopp, of Tunbridge Wells, by the Police Committee of the Tunbridge Wells Local Board, has lately been tried before the magistrates at the Tunbridge Wells Petty Sessions. Mr. Bisshopp was applied to by a man named Field, lodging at 7, Castle-street, Tunbridge Wells, who was found to have scarlet fever. How was he disposed of? A lodger in a place like Tunbridge Wells with scarlet fever! Mr. Bisshopp, in common with all the other medical men of Tunbridge Wells, had been, some time before, supplied with a form of certificate which, being filled up by a medical man in favour of any person suffering from infectious disease, entitled the person to admission to a temporary hospital; but there were two awkward conditions—one a payment by the patient, another an undertaking by the doctor to continue the treatment of the case. Here the man could not pay 10*s.* a week, the sum required. Further, Mr. Bisshopp did not choose to offer to attend him at the temporary hospital, and therefore his certificate was invalid. There was no one at the hospital to attend him even if he had chosen to go. The man, on being referred to the police, was refused admission to the hospital, and referred again to the relieving officer. The ruling passion of relieving officers in regard to lodgers did not fail here; the man clearly, despite the scarlet fever, should obey that great law of God and man—go to his own parish. Accordingly he did so the next day—Sunday. First, there was a railway journey of several miles; then four miles to walk. At the end of this he came to his sister's house, who refused to take him in. Thereupon he had to walk back nine miles to Tunbridge Wells, when he again resorted to Mr. Bisshopp, who thereupon went with him to—not the police, nor the relieving officer, but to Mr. Molyneux, the chairman of the local board. Mr. Molyneux being out, he was kept waiting an hour outside the house. "He laid down on the grass," and, finally, Mr. Bisshopp, fortified by a letter of admission from Mr. Molyneux, took him to the police-station, and he was removed in the ambulance to the hospital. Here, by the way, is a case of walking scarlet fever. Mr. Bisshopp was regarded by the local board in this case as "in charge" of the man in the sense of the Act, and therefore responsible for his being exposed, as he undoubtedly was, in all sorts of ways and places for twenty-four hours. The magistrates did not think the case one in which they should convict, and we think they were right. Mr. Bisshopp's humanity in the

case of this unfortunate man comes out so strikingly in contrast with the conduct of everybody else concerned, that it would have been hard indeed to have regarded him as responsibly "in charge" of the patient. We think he would have done better to have sent the man back to his lodgings, pending arrangements for his removal to the hospital. But at most his error was an error of judgment. The real lesson of the case is that Tunbridge Wells has a disgracefully insufficient provision for the disposal of infectious cases, and expects her medical men to supply this lack of service.

THE DUKE OF CAMBRIDGE ON ARMY MATTERS GENERALLY.

IN the evidence given by the Commander-in-Chief before the Royal Commissioners on army promotion and retirement there are several points which well merit attention, in consequence of His Royal Highness's views embodying the opinions of many practical and thoughtful people. We will not touch upon the subject of confidential reports, which are, naturally enough, generally speaking, unpopular, further than to say that the value of a confidential report will obviously depend, in a very great measure, upon the character of the man who makes it, for the individual reporting may not possess the ability, penetration, and painstaking qualities necessary to gauge character, or he may be influenced by prejudice, ill-temper, wounded vanity, or what not, and in that way a medical officer's reputation—for the system of confidential reports applies to all officers alike—may receive a stab in the dark, and he be unjustly injured. His Royal Highness considered, very properly, that nothing should be said against an officer without his being informed of it. It seems to us that confidential reports should not be the rule, but the exception, and that they should be made when the superior officer considers it his duty to record something in favour of or against any of his subordinates. It is, of course, quite right, in addition to its affording a wholesome kind of emulation, that the head of every department should be kept informed of exceptional zeal and intelligence, or the reverse, on the part of his officers.

The Commander-in-Chief, although he considered it premature to express any decided opinion on this subject, is evidently not enamoured of competitive examinations, but considers that a high-pitched qualifying examination would prove a good substitute by which the two conditions, mental and physical, might be combined. As it is at present, a competitive examination "gives you a great many men whose actual scientific acquirements are higher than you would get if it were only a qualifying examination, while it is very doubtful if you get as good officers." In the case of the army, where so much depends upon physical qualities, why could not the examination be altogether competitive, and the young man with a fine physique and the signs of a vigorous constitution, good eyesight, and so on, count so many marks to his name as against the weedy myopic youth with brains? The brains or the physique are, in either case, nature's gift, and the physical qualities will always, and the mental only sometimes, be tested by a campaign. But what the Commander-in-Chief said as to brevet rank strikes us as very applicable to the army medical service, and it involves a principle about which we have from time to time received numerous communications. It is much less objectionable, said His Royal Highness, than the selection of men for a higher substantive rank, which would be hurtful to many officers. "This injures no one, and yet puts a man forward." Fighting is the soldier's trade; an officer promoted for distinguished service in the field is rewarded for displaying merit in his own special line; but in the case of a medical officer it is otherwise. The medical service is a special one—technical and professional,—and to promote a man for some act of bravery is to place him at an advantage as a superior officer over men who may be, and very frequently are, his professional superiors as well as seniors. There is nothing that causes greater discontent than this. A medical officer may have every prospect of promotion; he is a capital man, and is doing excellent work, as he has always done, in the place where he is ordered; it is no fault of his that he is not elsewhere, and it may be that he volunteered, but ineffectually, for some special service; his more fortunate junior goes on that service, and is promoted for it, and occupies a vacancy which the senior had every right to expect to fill. It is quite right to reward the one man for service, for it is the luck of war, but not at the expense of the other, who may possibly be a far more capable and intelligent officer every way. Why should there not be brevet rank, or a supernumerary list, for the medical service? As it is, an inferior man as a medical officer may be placed in a position where the powerful instinct of self-preservation coming into play will obtain for him a reward in the way of promotion which will vastly improve his whole future career, and have an opposite effect on the career of others.

SUNSTROKE.

DR. HORATIO C. WOOD, whose excellent monograph on sunstroke, or thermic fever, published a few years since, must be familiar to a large number of our readers, has an instructive article on the disease in the *Philadelphia Medical Times* for August 5th. We regret that we cannot do more than skip lightly through it. Dr. Wood has been in medical charge at the Centennial Exhibition, and also on duty at the city hospitals during the recent unprecedentedly hot weather, and has been able to supplement his experimental knowledge of sunstroke with clinical observations. It may be remembered that the result reached in Dr. Wood's book was that there are two distinct classes of cases, which have been confounded under the name of sunstroke. In the one the patient is collapsed, in the other the bodily temperature is excessive. Two cases—one of each sort—which came under treatment at the Centennial are described. In the former there was a temperature as low as 95¼° F., and in the latter it rose to 108° F. In the two cases unconsciousness was developed with equal suddenness, and was accompanied by a similar delirium. Dr. Wood thinks it probable that in the collapse there is more than simple syncope; that lowered temperature, like elevated temperature, paralyses the nervous matter, which has been so constituted as to perform its functions on a certain caloric level.

Dr. Wood thinks that the possibility of children having slight attacks is greatly overlooked, and has little doubt that many of the cases reported as cholera infantum, enteritis, &c., are really instances of thermic fever and are curable by treatment as such. Cases of this character usually owe their cerebral symptoms either to intense exhaustion, to be treated by stimulants, or to intense fever, to be treated by cold baths. Referring to a paper by a colleague on the cold-bath treatment of infantile diarrhœa, Dr. Wood says: "Anyone who has seen, as I have this summer, the child on whom drugs had ceased to act and who was seemingly doomed to die, relieved in twelve hours by enforced cold bathing every three or four hours, will grant to Dr. Comegys the credit of having introduced one of the most life-saving improvements in infant therapeutics. The sudden sweet sleep replacing after the bath the fretful nights and days of unrest is a thing never to be forgotten when once seen, and the arrest of diarrhœa is certainly no less remarkable." As regards the treatment of thermic fever the early use of the ice-water bath is advo-

cated, the bath being used just long enough to reduce the mouth or rectal temperature to 100° F. and no longer. After the bath Dr. Wood has found the hypodermic injection of quinine of great service in preventing a rise of temperature. With the subsidence of the first symptoms, headache, slightly increased heat, general distress, and sometimes mental incoherency, supervene. These Dr. Wood believes to be due to a low grade of meningeal or even cerebral inflammation. He has found them yield in some cases very rapidly to free blistering of the back of the neck and head aided by small repeated does of mercurials. One great cause of the excessive mortality from sunstroke in hospital practice is recognised in the length of time that elapses between the onset of the disease and the use of the bath. In the Philadelphia hospitals and ambulances measures have been taken to obviate this danger.

THE LIVINGSTONE STATUE.

TRUTH is stranger than fiction. As if to prove the justice of the saying, the statue of Livingstone now stands beside the monument of Sir Walter Scott—the traveller whose life was a romance beside the romancist whose creations have become commonplace by comparison. Rarely has Scotland discharged a more pious duty than in placing the sculptured presence of the great missionary explorer within sight of all men in her capital; rarely, indeed, has she produced a son more worthy of such commemoration, more typical of her virtues in the past, more fraught with inspiration for her future. Scott, says Carlyle, had the ear of the world; what had he to tell it? The question is a hard one for the worshippers of Sir Walter; indeed, its damaging effect can be palliated only by pointing out that Scott the man was greater than Scott the romancist; that the courage and the chivalrous integrity with which he faced, and well-nigh overcame, the culminating disasters of his life, are a nobler boon to this work-a-day world than the most dazzling fiction with which he beguiled its leisure. But Livingstone's career throughout was even more chivalrous, because inspired by more honourable enterprise, and starting from a purer initiative. To widen the bounds of civilisation, to rectify the frontier of intellectual and spiritual darkness, to mitigate and eventually abolish "man's inhumanity to man"—such was the end and aim of his life, deliberately undertaken and unswervingly carried out. He died in the noble endeavour, but not before he had achieved the most signal triumphs in its progress, and had shown the way to many more fortunate if not more intrepid followers. It is no disparagement to the fine product of art that on the 16th was unveiled at Edinburgh, to say that a yet nobler monument will be his—the future population of Central Africa rescued from ignorance and reclaimed to the ranks of progress by his single-handed initiative and indomitable work.

THE VALUE OF SANITARY REPUTATION TO HEALTH AND HOLIDAY RESORTS.

AT the recent meeting of the Lancashire and Yorkshire Railway Company the chairman, in referring to the various causes which had operated to reduce the rate of dividend to be declared for the half year upon the stock of that railway, stated that "there had been a considerable diminution in the traffic with Southport owing to reports in reference to the health of that town, reports which he believed had been greatly exaggerated. During the last month the traffic with that town had fallen off more than £2000 per week." This statement, on an authority which cannot be called in question, is a wholesome sign of the growth of public appreciation for health reputation; it reveals, however, a fact which is not only unfortunate for the shareholders of the Lancashire and Yorkshire Railway, but most disastrous for the town of Southport. A reduction of £2000 per week in the traffic receipts from Southport passengers on one line of railway suggests a falling off in visitors to that favourite watering-place which must be almost unprecedented in the history of health and holiday resorts. This misfortune which has fallen upon Southport is due to two causes. The endemic prevalence of enteric fever in the town during the past year or two, and the recent epidemic of small-pox, have afforded grounds for reports unfavourable to the situation of Southport as a holiday resort during 1876; but it is to the exaggerated reports as to the sanitary condition of the town that the real disaster of the present season is mainly due. It would be impossible to exonerate the municipal authorities of Southport from all responsibility for the fatal prevalence of enteric fever so long after their attention was called to the fact by Dr. Vernon, their medical officer of health, although the extent of their blame may not be easy to determine. The town is now paying dearly for the recent sanitary policy of the Town Council, as the public, which have been alarmed by vague over-statements as to the fatal prevalence of fever and small-pox, will be slow to believe that the town is now freer from fever than it has been for some time, and that the epidemic of small-pox is fast disappearing. The natural advantages of Southport, especially in climate, are so great that we shall hope to see public confidence in its efficacy as a health resort soon restored. In the meantime the experience of the Southport season of 1876 teaches a useful lesson upon the value of sanitary reputation, which should be borne in mind by the authorities of other English watering-places.

THE RUSSIAN RED-CROSS SOCIETY.

IT is interesting to observe that as the Red Cross and other cognate societies in England are beginning to interest themselves actively for the Servian wounded, the Russian societies have already carried out their work so effectively that it has become necessary to stop, for the present, the movement of ambulance corps from Russia to the seat of war. From the very beginning of the Herzegovinian and Servian troubles the Russian Red Cross Society took measures for sending efficient medical assistance to the districts in which fighting had begun. This society has now at the seat of war in Servia not less than fifty surgeons, thirty assistant-surgeons, and upwards of forty-five nurses and sisters of charity, amply provided with medical and other stores for the sick and wounded. The society has established hospitals in Tchoupria, Jagodine, Pojardvats, and Semendria, and it is now organising a central hospital at Belgrade. Dr. Tokarew has been appointed principal medical officer of the Red Cross ambulances in Servia, and he reports that for the moment the medical assistance sent from Russia meets immediate exigencies, and he asks that the society and other benevolent associations, while in nowise relaxing their efforts to collect money and material, will not transmit either to Servia until he can state more clearly probable future requirements.

The enthusiasm which has been displayed in Russia in this matter is noteworthy. The Red Cross Society on the 19th July voted 100,000 roubles for the maintenance of its ambulances during the next six months. The affiliated societies of Moscow, Novogorod, Orel, Kharkow, Yalta, Tambow, Nijni-Novogorod, Vilna, Viatka, Kostroma, and Dorpat are busily engaged in forming ambulance corps. Independently of the Red Cross Society, Moscow has sent four ambulance corps to the seat of war, one at the cost of the Slav Benevolent Society, the other at the cost of the "Old Believers" of the city, the third at the cost of a lady and

gentleman, Madame Sapojnikow and M. Maliuntine, the fourth at the cost of the medical profession of Moscow. St. Petersburg has also sent a special ambulance corps organised by Dr. Botkine, besides numerous medical men and sisters of charity, whose expenses are furnished by a society of ladies. The railway managers have furnished great facilities for the transport of the different corps, and it would almost seem as if, in this particular field, Russia had left little or nothing for the Red Cross Societies and the benevolence of other nations to do.

DROWNING FATALITY IN THE METROPOLIS.

HOT weather in towns is a natural incentive to bathing, and, under present conditions, increase of bathing means also an increase of deaths from drowning. Bearing in mind, therefore, the unusual heat of the past few weeks, the recent remarkable fatality from drowning in the metropolis, which has been from time to time reported by the Registrar-General, might have been expected by the statistician, and we fear that there is too great a tendency in the present day to regard such recurring fatality as inevitable. During the seven weeks ending the 19th instant, 99 deaths from drowning were registered in the metropolis; the average number in the corresponding period of the last ten years, after correction for increase of population, was but 76. The deaths from drowning in London during the first seven weeks of the current quarter, therefore, exceeded the corrected average by 30 per cent. Here is an increase of deaths from drowning which can only be explained as the joint effect of the hot weather and a large increase in the number of bathers, as it is improbable that the percentage of fatal accidents among bathers is larger than it was a few years ago. The returns of the Registrar-General do not distinguish the bathing fatality from other deaths by accidental drowning, nor indeed are the verdicts at inquests always instructive on this point; but the ages of the persons drowned afford some clue to this information. The 99 deaths from drowning in London during the seven weeks included no less than 68 of children and young persons aged under twenty years, and only 31 of adults. The sooner the wholesome fact is recognised that the rising generation of London is showing an increasing inclination to bathe, and the sooner that greater facilities for safe and decent bathing are provided, the sooner will the summer fatality from drowning be reduced, by rendering it possible to put a stop to bathing in unfit and dangerous places. Unregulated bathing in rivers and canals in towns is not only dangerous to the bathers, but it often constitutes a public nuisance.

QUARANTINE AT QUEBEC.

THE last Report of the Minister of Agriculture for the Dominion of Canada contains some remarks on Quarantine by Dr. Frederick Montizambert, medical superintendent of the quarantine station at Grosse Isle. This station is in the St. Lawrence, about forty-five miles below Quebec, and the situation is specially convenient for the examination of vessels proceeding up the river. Under existing regulations all vessels except the Canadian mail steamers, on board of which any death or any infectious sickness has occurred during the passage, are bound to report themselves at Grosse Isle, as well as all sailing ships that have a certain proportion of steerage passengers to their tonnage. All vessels liable to quarantine at Grosse Isle are (or ought) to make further quarantine in the harbour of Quebec. The superintendent observes, however, that these rules are, in the case of all vessels arriving without passengers, regarded as voluntary, and that it is impossible to say how many cases of infectious disease may find their way unhindered into the port, for, as it appears, the Customs authorities do not interfere at all in sanitary matters. There are, indeed, inspecting physicians at Quebec, whose custom it is to visit all vessels that arrive with passengers; "but," says Dr. Montizambert, "for the thousand or more ordinary vessels without passengers that enter the port each year, there is apparently no regular inspection." The obvious remedy for this very unsatisfactory and unsafe condition of things is to appoint sanitary inspectors, whose duty it should be to visit, under the directions of the health officers at Quebec, all vessels of every kind, immediately after arrival, and, whenever anything of an infectious nature is discovered, to remove the case to hospital, and fumigate and, if necessary, isolate the ship. This kind of work is going on daily in the port of London, every ship being visited and examined within twenty-four hours (at most) of arrival, and this without any hindrance to commercial interests. If a detention and a report at Grosse Isle can be insisted upon, so much the better. But delay for anything short of yellow fever or cholera galls those concerned very much, and in all ordinary cases, as of small-pox, scarlatina, &c., the plan above quoted has been found to work in the Thames very effectually.

MILITIA SURGEONS.

So many questions have been put touching the working of the new Warrant, that it is well to direct attention to the following facts:—Should the surgeons accept the terms offered, they renounce all claim to compensation; for they take on again under new terms, and there is no doubt this would be very plainly told them should they once desert the shelter of the Act of Parliament under which they hold their commissions. This Act entitles them to half-pay after ten years' embodiment, and as most of their commissions were received from the lords-lieutenant of their respective counties on the understanding that they were required to do certain work for a certain pay, and to obtain that pay they should reside at head-quarters, this last proviso being insisted on by the War Office, a distinct breach of contract is attempted under the new Warrant. We would therefore recommend that at present no militia surgeon accept the terms of the Warrant, but retain his post, as he cannot be worse off unless the £3 7s. 6d. per annum offered by Mr. Hardy is considered as equivalent to the loss of five-sixths of an annual income. No medical officer who is fit for duty can be removed under the Militia Act now in force, and as it is intended that a very strong deputation shall wait upon Mr. Hardy after the holidays, militia surgeons should see their lords-lieutenant and members of Parliament, make them acquainted with the facts of the case, and plainly lay before them every hardship of the working of the new Warrant.

INFANTILE DIARRHŒA IN LEICESTER.

LEICESTER is again suffering from that exceptional fatality from infantile diarrhœa which has attracted so much attention in recent years, and the cause of which has been the subject of so much investigation and conjecture without resulting in any satisfactory or easily acceptable solution. During the three weeks ending on the 19th inst. 102 deaths within the borough of Leicester were referred to diarrhœa, equal to an annual rate of 15·6 per 1000 living; whereas the annual death-rate from diarrhœa in the nineteen other large English towns furnishing weekly returns did not average more than 5·6 per 1000 during these three weeks. Thus infantile diarrhœa has been recently nearly three times as fatal in Leicester as in the other largest English towns. In the two most southern towns, Portsmouth and Plymouth, the death-rate from diarrhœa during the same three weeks

did not exceed 4·0 and 2·4 per 1000 respectively, and the temperature in these two seaports was only slightly lower than in Leicester. In proof, moreover, that heat alone is not sufficient to account for the wide variation in the death-rates from diarrhœa in different towns, it may be noted that in London, where the mean temperature of the three weeks was 66·6° F., the death-rate from diarrhœa was less than 5 per 1000; whereas in Leicester, where the mean temperature was 65°, the diarrhœa rate was 15·6 per 1000. The local authorities in Leicester are said to be pursuing their investigations into the circumstances of each fatal case of infantile diarrhœa, in the hope of further elucidating the cause of the peculiar fatality of the disease in Leicester, which undoubtedly still remains to be discovered.

THE POPE AND HIS CARDINAL SECRETARY.

"PIUS the Ninth will see us all out"! So said the Pope's War Minister, the late Monsignor de Mérode. To Cardinal Antonelli this saying of his implacable enemy at the Vatican must recur with ominous effect when day by day he receives in his sick room a visit from the Pope, whose healthy looks seem almost radiant in contrast with the wasted and anxious features of the invalid by whose bedside he sits. The severe arthritic pains the Cardinal suffers are complicated with those of periodical ischuria, but he bears both with a masculine fortitude, reinforced doubtless by the consciousness that, while his physicians ascribe much of his malady to his six years' imprisonment in the Vatican, that imprisonment was his own policy, and must therefore be endured without a murmur, particularly in presence of its august sharer, his master. The relief so often derived in ailments such as his from a free action of the skin is denied him, the cutaneous emunctories being in his case constitutionally torpid, and remaining so in spite of the repeated and diversified means practised by his physicians to stimulate their function. Sympathising deeply with his counsellor and companion during all the vicissitudes of his pontificate, the Pope administers his special consolations, and shows every solicitude to prolong a life so long attached to his own, and still capable of yielding valuable service. But the end, we fear, is at hand; and when the grave closes over James Antonelli his sorrowing master will have the further trial of adjusting the claims, while allaying the jealousies, of more than one importunate aspirant to the vacant post.

SENSATIONAL SWIMMING.

IT is to be feared that Captain Webb's splendid feat of swimming across the Channel has given birth to a taste for sensational performances in the water that are likely to rival those of Leotard, Lulu, and others, who choose the air in preference to a denser medium wherein to disport themselves. It is, as we take it, a duty to record a protest against hazardous experiments improperly conducted, whether in air or water. The evidence forthcoming after (not before) Cavill's attempt to swim across the Channel last week showed that the performer was, physically speaking, in an unfit state to attempt any such feat. A man who is the subject of dyspepsia and an enlarged liver, from whatsoever cause, is not likely to be capable of any vast amount of sustained energy. And when, superadded to these complications, misguided friends chose to ply their champion with alcohol in the form of brandy and old ale, the result of the experiment could not be very difficult to predict. If, however, these foolhardy experiments are conducted under medical auspices, it is plain that the physician or surgeon in charge should be master of the position, and not go out to look on just for the purpose of acting as a sort of "corpse reviver." If scientific aid is worth anything on these occasions, it should be used more for prevention than cure. But we believe that no medical man should by his presence give sanction to such an experiment unless he has determined, by a careful examination, that the swimmer is in as perfect a state of health as can be attained by careful training, and, above all, that lungs, heart, and all other internal organs, have not been deranged or spoiled by disease or any other cause.

SCARLET FEVER IN PORTSMOUTH.

THE epidemic of scarlet fever in Portsmouth showed increased fatality during the week ending 19th instant, when 17 deaths from the disease were then registered—a higher number than in any week this year. The annual death-rate from scarlet fever in the borough was equal to 1·8 per 1000 in the first quarter of this year; to 3·3 in the three months ending June last; and to 5·3 per 1000 during the seven weeks ending 19th instant. Between the beginning of July and the 19th instant, 24 deaths occurred from scarlet fever in Southsea. If we are rightly informed, the Town Council, as the urban sanitary authority, has not yet provided any hospital accommodation for the isolation and treatment of non-pauper cases of infectious diseases within the borough. This omission is opposed to the best interests of the town, and to the prosperity of Southsea as a watering-place and health resort.

THE INTRODUCTORIES.

THE Winter Session will be inaugurated by introductory addresses at the various metropolitan medical schools on the 2nd October, as follows:—At St. George's, by Dr. Blandford, at 4 P.M.; at Westminster, by Dr. Allchin, at 8 P.M.; at the London, by Dr. Andrew Clark; at the Middlesex, by Dr. Evans, at 3 P.M.; at St. Thomas's, by Mr. Francis Mason, at 4 P.M.; at the Charing-cross, by Dr. Bruce; at King's College, by Professor Baxter, at 4 P.M.; and at University College, by Dr. Maudsley. There will be no introductories at St. Bartholomew's and Guy's, but at the latter hospital a *conversazione* will be held in the evening, on which occasion the prizes for the past session will be distributed.

DISEASED MILK.

DR. PAYNE, medical officer of health for Cardiff, in a report of the condition of the town issued within the last few days, gives a good description of diseased milk (from foot and mouth disease) from examinations made by Mr. Thomas. In the first stage of the disease little or no difference is observed with the exception that small particles of solid matter—fat of a star-like form—are seen. As the disease advances these star-like masses become larger and larger. This is especially the case if the milk has remained some time in the udder. When the disease has attained its height, and the milk-glands, either from sympathy, fever, or other local causes, become attacked, the milk generally gives a strong acid reaction, while the casein is at the same time uncoagulated. The casein then appears to exist in a modified form, several such samples having withstood the action of strong acids for some time before coagulating. If the milk while in this state be slightly agitated for a short time, masses of fat rise to the surface, and from a pint of milk it is easy to obtain a mass of butter weighing no less than an ounce or an ounce and a half. Healthy milk, if shaken for twice the time, will give no such reaction. Moreover, the colour of the milk when much diseased is yellowish brown, of strong odour, and of such consistency as to be easily distinguished from healthy milk. If water be added to it when freshly drawn from the cow, although the colour

and consistency are reduced, the fatty masses are not dissolved, and are easily recognised. A microscopical examination reveals the extreme richness of the milk and epithelium in very marked scales. The most marked and constant indication of the disease is the tendency which the apparently healthy fat-globules have of congregating in masses. When the globules have agglomerated their shape changes from round to oval, hexagonal, and broken-down forms, and the masses are often so dense as to present a black appearance under the microscope. Mr. Thomas gives a feasible explanation of this condition.

THE "THUNDERER" DISASTER.

SINCE our last report, C. P. Williams, boy, aged fourteen, succumbed to gastro-enteritis. He was very extensively scalded about the face, upper extremities, and body; and, considering the extent and the depth of the scalding, he made a wonderful struggle for life. For some days before death released him from his sufferings, aphthæ on the tongue and irritability of stomach showed too plainly the dangerous nature of the case. This makes twenty-six deaths out of the fifty-nine cases originally received into Haslar—a fearful percentage certainly, but not so large as the surgeons estimated on the day of the catastrophe, looking at the serious nature of the injuries sustained.

SIR WILLIAM FERGUSSON.

WE are very glad to be able to state that Sir William Fergusson is continuing to improve in health, and that he is enjoying the late beautiful weather at his country seat in Scotland. There is, probably, no one more deservedly popular with the profession than Sir William Fergusson, and it will sincerely rejoice if he regains his health so as to return to those labours in which his admirable dexterity and judgment have so long enabled him to give effect to his benevolent objects.

SMALL-POX IN BLACKBURN AND CHORLEY.

SMALL-POX continues prevalent in Blackburn, and the Town Council, as the urban sanitary authority, are erecting a wooden shed, to be used as a temporary hospital for small-pox patients, which will be ready for use in a few days. Only two deaths from this disease were, however, registered between June 30th and the 22nd inst. A severe outbreak of the disease is also reported from Bispham and Mawdesley, townships in the Chorley union. One whole family of five, none of whom had been vaccinated, have died.

HOSPITAL SATURDAY.

THE committees of hospitals, infirmaries, and dispensaries, who desire to participate in this year's Hospital Saturday distribution, have been reminded that the time for supplying the information on which the council will make their awards will not be extended beyond the 2nd September, the Saturday on which the collection will be made. The Postmaster-General has this year accorded permission for collection sheets to be circulated throughout the various departments of the General Post-office.

A LARGE number of members of the profession in Liverpool have memorialised the School Board of the town on the necessity of a periodical inspection of schools. After stating that small-pox is epidemic in the town, and is spreading, the memorialists contend that parents have a right to expect that in conforming to the law of the land their children should not be exposed at school to infectious disease, which, in the case of small-pox, they would probably carry home to other members of the family; and then strongly urge the adoption of a system of inspection by medical men. It is also pointed out that the principle of medical inspection of a precisely similar character is recognised by the Government in the emigrant service for the prevention of diseases on board ships, and is found to work well. The Board referred the memorial to the General Purposes Committee for consideration. Judging from a few observations made by members of the Board on this occasion, we are afraid that the movement will meet with some unwise opposition.

THE Sanitary Committee of the Town Council of Leeds were requested by a resolution of the Council, passed on the 1st January last, to consider and report upon the best means of providing dwellings for the population displaced by the operation of town improvements, and by the condemnation of houses unfit for habitation. The Town Clerk having made a special report as to the powers of the Town Council in the matter, the Sanitary Committee recommend that "powers be included in the next Improvement Bill promoted by the Corporation to purchase land and erect, or cause to be erected, dwellings for the poor in suitable parts of the town." At a recent meeting of the Town Council, after a short discussion, this recommendation of the Sanitary Committee, in the form of a resolution, was adopted with but one dissentient voice. Such a resolution is a good one so far as it goes, but the adoption of an improvement scheme under the Artisans' Dwellings Act of 1875 would afford a more reasonable prospect of practical results.

THE thirtieth annual report of the Commissioners in Lunacy to the Lord Chancellor has been issued. We find that the total number of lunatics, idiots, and persons of unsound mind in England and Wales, recorded as such on the 1st of January last, was 64,916, an increase of 1123 upon that of January, 1875. The report contains tables giving detailed information as to the numbers, classification, and distribution of the insane; the ratio they bear to the population; the proportion of lunatic paupers to the general population and to paupers of all classes; and the increase or decrease during the year of pauper lunatics in the various counties; the admissions, discharges, and deaths, together with the statistics of recoveries and mortality of patients detained under orders and certificates in asylums, hospitals, licensed houses, and in single charge.

THE first report of Mr. S. R. Lovett, who has succeeded the late Dr. Ross as medical officer of health in the St. Giles's district, has just been published. It contains no feature of special interest. The district was entirely free from small-pox and diphtheria during the year 1875; 206 deaths occurred from zymotic diseases, including 15 from scarlatina, this malady having, however, flourished less in St. Giles's than in other of the metropolitan districts. The sanitary work of the year includes the inspection of 11,211 houses, the disinfection of 833 articles, the closing of 23 houses, and the reconstruction of 15 others under the Sanitary Act of 1868. A proposal for the application of the Artisans' Dwellings Act of 1875 to the Great Wild-street neighbourhood of the district is still under the consideration of the Metropolitan Board of Works.

THE mortality in London last week was at the rate of 23 per 1000 annually. There were registered 1509 deaths, including 5 from small-pox, 25 from measles, 46 from scarlet fever, 3 from diphtheria, 26 from whooping-cough, 24 from different forms of fever, and 232 from diarrhœa. Different forms of violence caused 55 deaths. The deaths of one adult and of two children were referred to sunstroke. Four cases of suicide and two of manslaughter were registered.

IN a report of the quality of metropolitan waters during July, the examiner observes that the water delivered for domestic purposes by the companies is frequently deteriorated after leaving the companies' mains by the dirty state of the cisterns on the premises of the consumers; many of the cisterns, tanks, and butts in small tenements are in a disgusting and filthy state. Often when travelling on the metropolitan and suburban lines cisterns may be seen without lids, full of rank and decaying vegetation, which, on a closer examination, would doubtless show more or less organic deposit, and, under the microscope, would be found to abound in infusorial life. The warning is again reiterated that the greatest care must be taken to prevent the contamination of drinking water after delivery, the most important step being to thoroughly and frequently clean out all cisterns.

FROM the quarterly return of marriages, births, and deaths for Ireland, just published, we find that the state of public health during the past quarter was satisfactory. There was a considerable diminution in the number of deaths from the principal zymotic diseases compared with the corresponding quarter of last year, and this decrease is, to some extent, attributed to an improvement in the sanitary condition of the country. Several instances of prolonged longevity were recorded during the quarter. Thirteen persons were stated to have attained the age of 100 and upwards, one of whom was registered as 113, and two others of 109 and 108, the latter being described as a "widow of temperate habits, who neither smoked nor snuffed. She maintained her intellect to the last and walked a mile in perfect health a week before her death."

A REPORT of the health of the parish of Marylebone during July has been issued by Dr. Whitmore. With the exception of diarrhœa, all other diseases of the zymotic class were less prevalent and fatal in the district than in any corresponding period for the last few years. Three or four cases of small-pox of a mild type are reported to have occurred. At the commencement of the hot weather several thousand handbills were distributed amongst householders in the parish, calling attention to the condition of their dust-bins, and warning them of the injury to health which was likely to accrue from throwing animal and vegetable refuse into them. It appears that a system of watering by disinfectants is being carried out in all the small and confined streets of the parish, and disinfectants are also daily thrown down the gullies.

ACCORDING to the most recently published returns of the Metropolitan Asylum District Board, the two small-pox hospitals at Homerton and Stockwell contained seventy-four small-pox patients on the 19th inst., showing an increase of twenty-two upon the number remaining at the end of the previous week. During the week thirty-seven new cases were admitted to those two institutions, of which twenty-eight were vaccinated and nine unvaccinated. These figures, which we should not be surprised to see quoted by anti-vaccination agitators as evidence that vaccinated persons are more than three times as susceptible of small-pox as unvaccinated persons, appear to show that revaccination of adults is desirable, more especially at times when the disease exhibits a tendency to become epidemic.

WE much regret to announce the death of Professor Rainy, M.D., LL.D., of Glasgow, at the advanced age of eighty-three. In 1842 the deceased was appointed to the Chair of Forensic Medicine in the University of Glasgow, which he occupied up to the time of his death. He practised his profession as consulting physician with signal success.

SEVERAL deaths from enteric fever having occurred lately in Rugby, the Local Government Board have written to the Rugby Board of Health for information as to the circumstances under which typhoid occurred in the town, and requesting that the medical officer of health be directed to report on the whole subject: first, as to the amount of fever present in the town within recent years, quarter by quarter; and, secondly, as to any relation which the fever may exhibit to defects in drainage and other means of filth disposal, or to impurities, with the water service of the district. The medical officer of health for Rugby is Dr. Wilson, to whom the matter has been referred.

WE are very pleased to see that Dr. Hardwicke, in the course of a recent inquiry into the suicide of a married woman, peremptorily stopped some members of the jury who were about to question the husband as to his relations with a particular female whose name had been mentioned. The coroner observed that it was not the province of the jury to expose the private character of persons not directly connected with the case before them; it was travelling out of the province of the court, and he should at all times object to it. We trust this opportune rebuke will do something to lessen what was becoming a serious evil.

THE Act to enable legally qualified medical practitioners to hold certain public medical appointments, and further to amend the Medical Act, has just been issued. Qualified practitioners are now to be deemed capable to be elected as surgeons to county infirmaries, &c., in Ireland, and "all persons who have obtained from any university of the United Kingdom legally authorised to confer the same, the degree of Bachelor in Surgery, shall be permitted and are hereby empowered to register the same as a qualification under the Medical Act, anything in the said Act to the contrary notwithstanding."

MR. H. H. VERNON, medical officer of health for Southport, reports that the outbreak of small-pox in the borough is now entirely subdued.

THE WOUNDED IN SERVIA.

THE National Society for Aid to the Sick and Wounded in War being now engaged in active operations for the relief of the sufferers from the campaign in Servia, we feel it incumbent upon us to make a few remarks as to the way in which this charitable object is being carried out. In the first place, it is a matter for congratulation that the Eastern War Sick and Wounded Relief Fund has seen fit to amalgamate with the National Aid Society, whereby doubtless both efficiency and economy will be much promoted. The object of the Society must be for the present chiefly to send medical stores, and, above all, surgeons and dressers, to the seat of war. We have heard of no scarcity of food at present, either amongst the Servian troops or in their hospitals. It seems strange, therefore, that a committee has been chosen numbering amongst its members only two medical men. These two gentlemen are, no doubt, a host in themselves; but, unfortunately, one of them, Mr. M'Cormac, has gone out in person to the war, and the other, Surgeon-General Longmore, is not, we believe, resident in London, and cannot be expected to give the close personal supervision to the choice of medical stores, and above all of surgeons, which is absolutely necessary. Under these circumstances, the arrangement of details, a great part of which will be purely medical, is left to a committee composed chiefly of combatant military officers, who, with perhaps the exception of Colonel Bracken-

bury, can have no practical knowledge of the affairs they undertake to manage. Surely there must be numbers of half-pay army surgeons who would gladly undertake a share of these duties, and without this we fear there will be a repetition of the blunders committed by the National Aid Society during the Franco-German war. Far be it from us to say anything to disparage the generous and self-sacrificing exertions of those who formed the executive committee at that time; but it stands to reason that a half-pay combatant officer is no more fit to undertake the choice or distribution of medical stores or the selection of a staff of surgeons than a medical man would be to take the command of a brigade. The result of the want of practical knowledge on the part of the committee was that long after the Belgians, Dutch, Americans, and others had well-equipped ambulances in the field, officered by surgeons of rank and experience, the National Aid Society had scarcely anything to show, and had to content itself with helping and supporting institutions founded by others. It may seem a matter of but little importance what is done with the comparatively small sum of £20,000 which the Society has voted for the relief of the sufferers from the Turco-Servian war, or who may be sent out to such a comparatively outlandish place and people; but for all we know, this war is but the commencement of a European struggle, and the present committee may have to dispense sums even greater than those raised during the campaign of 1870-71.

Under these circumstances we venture to offer the following suggestions:—In the first place let them add to this number, if possible, at least six medical men, who can actively superintend the selection of surgeons, and of medical stores. As to the selection of surgeons, we cannot but think that the system of waiting for volunteers is in every way a bad one. If the committee want to get really first-rate men they must go in search of them, and make it worth their while to go. The Society has been very fortunate, so far, in obtaining the services of such men as Mr. McCormac and Mr. McKellar, and we believe more such could be found willing to go if it could be accomplished without a ruinous pecuniary loss to themselves. There always must be in London a large number of young surgeons either just appointed to the junior posts on the staffs of hospitals, or waiting for such appointments, who are not yet bound by the ties of practice or matrimony, and who would be glad to accept a post as surgeon in the service of the National Aid Society. If a few such were found each would be readily able to provide for himself two or more dressers from amongst the senior students of the hospital with which he was connected, who would accompany him to the field of action. Such young surgeons, if sent out, should be under the control of a senior officer, but should, as far as possible, have direct charge of the wounded under their care. The greatest possible mistake is to send out surgeons, or, at any rate, qualified medical men, where dressers are wanted. It leads only to jealousy and insubordination, and the work is not well done. These details can only be carried out by a committee of medical men, who would know where to look for the sort of men they wanted, and how to ascertain their fitness for their respective posts. If the present war were to extend and unfortunately to involve this country, the same system might be extended, and each large medical school might be asked to supply a compact and orderly staff sufficient to take charge of a moderate-sized hospital. As to the goods and stores, each ambulance belonging to the Society might serve as a centre from which their distribution might be made, and for this purpose to each complete ambulance should be attached a non-medical officer, whose duty it should be also to attend to the commissariat of the ambulance itself. It is of little use to send out an odd surgeon here and there into a country the inhabitants of which speak a language he knows nothing of. One fully equipped ambulance, with a complete staff of surgeons, dressers, &c., would be far more likely to render efficient service than the same staff would if scattered and working individually. We make these suggestions in no cavilling spirit. We wish the Society every success in its charitable work, but we do feel strongly that good intentions alone cannot lead to success without technical knowledge and experience.

The Turco-Servian war, as now carried on, presents very great difficulties to well-intentioned neutrals who desire equally to help both sides. It is a war between semi-savage countries, a war of races and religions, and the combatants are hardly likely to understand the even-handed neutrality assumed by the agents of the National Society. They are still less likely to understand it if at the same time they find an opposition society engaged in a similar work of mercy to the wounded, but at the same time avowedly attempting "to aid the Christians in Turkey in obtaining their freedom from Mussulman oppression."

THE GLASGOW LYING-IN HOSPITAL.

THE forty-first annual report of this institution has been issued. The total number of women confined last year was as follows: at the hospital, 304; at their own homes, 927. The hospital is reported to have been, on the whole, in a healthy condition last year. During the month of March, however, two cases of fever incident to the puerperal state occurred, and which in spite of all treatment terminated fatally. The usual means were at once employed to prevent the spread of the disease and, as the result proved, with complete success. The attending physicians refused for some time admittance to fresh applicants and dismissed the patients already in the hospital. Every possible care and attention was bestowed on the sanitary and hygienic condition of the hospital. Cleanliness, thorough ventilation, antiseptic fumigation, complete segregation, prevention of overcrowding, &c., were rigidly enforced. In consequence of the appearance of scarlatina in the hospital towards the end of August for a week, and again early in October, it was deemed necessary to close the place, on both occasions, the infected patients being sent to the fever hospital. The hospital had hitherto enjoyed remarkable immunity from the importation of infectious disease. It is stated that the patients, generally speaking, were poor, helpless, destitute women. Many of them were in a very exhausted and debilitated state from deficient nourishment, exposure, and chronic disease, and were thus badly fitted to withstand the shock of parturition. A number were also received into the hospital who, from previous experience, anticipated special difficulty; and several were admitted after having been delivered in the street. The hospital is a school of practical and clinical midwifery and is attended by a large number of medical students. Courses of lectures to female pupils are regularly given by the physicians.

THE first stone of an infirmary of five beds at Hawkhurst was laid last week by Mrs. Margaret Adams upon a site of two and a half acres given by her.

THE "Standard" announces that the Warrington Council have asked the Court of Chancery for an injunction to restrain the Warrington Spelter Works Company from carrying on their works. The medical officer of health for the borough affirms that offensive effluvia and vapours injurious to human and vegetable life are emitted from the works, and that the nuisance arises from the process of recovering metallic zinc from material already used in galvanising wire. It appears that the trees and grass in the neighbourhood are severely affected by the vapours.

Correspondence.

"Audi alteram partem."

EVIDENCE OF PSYCHO-MOTOR PARALYSIS.

To the Editor of THE LANCET.

SIR,—Will you allow me space for a few remarks in reference to the note which Dr. Brown-Séquard did me the courtesy to append to that portion of his lectures contained in the last number of your journal, in allusion to some comments of mine in the number for the 19th instant, on the question of *evidence* in alleged cases of psycho-motor paralysis.

I was gratified to learn that my views met with the concurrence of the distinguished physiologist; and therefore am I desirous to make them more clear to your readers than was compatible with the shape in which they then appeared—viz., as a few "remarks" on a case in the "Mirror."

I did not, in those remarks, lay sufficient stress, I think, on the nature of the evidence which the galvanic current appears to me to be capable of affording as to the existence or otherwise of paralysis in connexion with cerebral disease.

In the case alluded to the patient was mortally comatose from pyæmic effusion beneath the pia mater for a large extent over the hemispheres, beneath the pons, in the subarachnoid space, and in the left ventricle, consequent on a fracture of the petrous portion of the temporal bone, succeeded by the escape of cerebro-spinal fluid. Two days before death generally psycho-motor paralysis was suspected; indeed, as far as could be ascertained by the actual methods, it seemed really to exist, together with paralysis of the third pair so far as the circular fibres of the iris were concerned (which was diagnosed). Ptosis was uncertain; there was no squint.

The galvanic battery afforded evidence that reflex action existed everywhere throughout the cord by the stimulation of muscles included between the poles. I name this to contrast it with other results.

On gradually intensifying the galvanic current—confining its action to one limb and different parts of that limb—other movements were elicited obviously through other channels than the cord alone—viz., the sensory ganglia of the hemispheres; and a manifest act of volition followed. The patient was partially aroused from his comatose state, turned his head around on the pillow, and drew away his whole body violently and peevishly from the source of irritation—the galvanic sponges.

This act (and this is the point) could scarcely be other than volitional: for the movement of the body and limbs showed an amount and kind of irregularity, and at the same time a general definiteness of purpose, that were together inconsistent with explanation upon any other hypothesis. They were certainly not automatic: paralysis was therefore not indicated.

Dr. Brown-Séquard "fears that the movements of any kind that may follow the irritation of a limb by galvanic shocks, however useful that test may be, cannot generally give decisive proofs of the existence or the absence of a paralysis."

It is to be observed that my remarks apply exclusively to cerebral or psycho-motor paralysis; and go to show that galvanic shocks, limited to a portion of a limb, can determine the latter position—the *absence* of paralysis—by *direct* results; and, *inferentially*, the former—its *presence*, in cases in which the only other resource is little better than conjecture; that, if volitional power is not destroyed, it may be aroused for a time by an appropriate stimulus, however deep the coma or other disorder by which its action is held in abeyance.

My experience of this test is too small to be conclusive; but with the very important and honourable admission of Dr. Brown-Séquard that "the means employed to detect paralysis or to ascertain its absence were not such as to leave a doubt as regards, on the one hand, the degree of an existing paralysis, or, on the other hand, the complete absence of such paralysis" (Lect. LANCET, Aug. 19th, p. 245), it would be a gain to our means of diagnosis if further inquiry should go to establish the galvanic stimulus as a reliable test, in such cases.

A wound, or a pinch, or heat might be equally effective, but galvanism would be the least objectionable, and, perhaps, more sure; whilst it would, at the same time, supply a gauge of the intensity of the force which it is employed for the purpose of overcoming.

I am, Sir, yours obediently,

Finsbury-place South, Aug. 23rd, 1876. JOHN GAY.

CARBOLIC ACID IN SYPHILIS.

To the Editor of THE LANCET.

SIR,—Allow me, through your journal, to say a few words in reference to carbolic acid as a preventive in syphilis. I shall confine my remarks to its protective properties, and not enter into the question as to whether it be moral or immoral; neither shall I trouble you with proofs. But on a future occasion I shall furnish you with all this.

Ever since I passed (1871) I have been asked continually, by persons of all kinds, "Do you know anything that will prevent syphilis?" At first I used to answer, "I know nothing." Then I thought, if it is true that carbolic acid is an antiseptic, why should it not be so in syphilis? Accordingly I recommended it whenever I had a chance, and it has surpassed my expectations. Not a week passes but someone says or writes to me, "You have made a great discovery. Well, I think you are right; I believe in carbolic acid." But no one has written to the contrary. To those who may think I do not hear of failures, I answer, I have heard when it has failed—viz., in gonorrhœa. I always recommend washing *immediately after* coitus, always using soap containing *twenty per cent.* (not less) of *carbolic acid*. I am convinced that carbolic acid prevents infection, and I shall be glad to hear if I am wrong. None of these arguments refer to washing after the syphilitic poison has had time to be absorbed into the circulation, or after its insertion into the blood at the point of a lancet.

I am, Sir, yours faithfully,

HANMER DICKSON, M.C. Edin.

Nelson-square, S.E., August 18th.

THE FELLOWSHIP OF THE LONDON COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—The Fellowship of the London College of Surgeons is considered the highest surgical qualification in this country, and its possession is a *sine qud non* to any person who is ambitious to obtain a first-class surgical appointment.

There are very many licentiates of the Dublin and Edinburgh Colleges practising in England and Wales who have not in their student days conformed with the extensive curriculum required for the London Fellowship. An M.R.C.S. of eight years' standing is admitted to examination for the diploma of Fellow, and I believe the concession of a similar privilege to the licentiates of the sister colleges of Ireland and Scotland would be a great boon to a numerous body of practitioners, and that the desire to possess an honourable diploma would act as an incentive to keep abreast of the surgical knowledge of the times.

Your obedient servant,

August 12th. T. J. M.

Obituary.

GOODWIN PURCELL, "THE O'LEARY," M.D.

GOODWIN PURCELL, the O'Leary, died on the 9th of last month, at the residence of his cousin, the Rev. Goodwin Purcell, Vicar of Charlesworth, Derbyshire. Suffering for the past two years from phthisis, he had retired to Charlesworth in the hope of recruiting his health; and few beyond his own relatives knew the distinguished reputation he had earned, or the talents concealed under his quiet and unob-

trusive manner. Born in 1817 at Kanturk House, County Cork, the baronial residence of his grandfather, Goodwin Purcell, at five years old, was sent away to be educated at Paris; at thirteen years old he returned to Ireland, entered Trinity College, Dublin, graduated there at sixteen, when, in opposition to his father, who wished him to study law, he chose the medical profession, giving as a reason, that in law he had only men's edicts to learn, in physic, nature's. Having become M.B. of Trinity, he went to Edinburgh for the M.D. of that university, and while there, hearing some students say that an Irishman had never taken the Graduation Gold Medal, he resolved at once to try for it, and he did successfully. He then spent ten years abroad, studying as an amateur the profession of medicine in the various capitals of Europe and acquiring a thorough mastery of the different languages of the Continent. Returning to Ireland, he was appointed to the Chairs of Therapeutics and Medical Jurisprudence in the Queen's University, Cork, for which his high scholarly attainments eminently fitted him. Though Dr. O'Leary never engaged in private practice, he nevertheless spent most of his time studying his profession, and was for many years, during his professorship in the Queen's, occupied in writing a book on the different practices of medicine, which he illustrated by drawings from his own hands. This, when almost completed for the press, was lost in the burning of the Cork College; the loss he felt bitterly, and for some years remained in an almost settled state of melancholy. As a lecturer he was most deservedly popular, not only from his kind and attractive manner and his thorough knowledge of pharmacy, but from his ability to make his lecture both instructive and interesting. He was greatly aided by his perfect acquaintance with almost every European language, which enabled him to obtain the most recent information on most branches of his profession. Professor O'Leary was among the first to use the laryngoscope and ophthalmoscope, and soon became a proficient in the use of these and other new scientific instruments: he constantly introduced new continental ideas into his own school. He was by no means an inferior microscopist. In addition to the M.D. of Edinburgh, M.A. of Dublin, and B.L. of Paris, he had many other degrees conferred on him, and was member of several learned societies.

The last chieftain of the line of O'Leary, the traditions of a great past kept alive within him a high chivalric feeling; and when Austria and Prussia united their forces to despoil the little Danish kingdom, The O'Leary was the "Cente Garde" Colonel who offered to bring to the standard of the King of Denmark 100 men, mounted and accoutred at their own expense. After this he was a welcome guest at the Courts of Sweden and Denmark, and received the order of the "Dannebrog," which order he alone in Britain possessed, with the exception of the Prince of Wales.

On the 13th of last month Professor O'Leary's remains were conveyed to Ireland, and on the 15th laid to rest in the soil of Kilcrea Abbey, in his ancient principality.

Dr. O'Leary's grandfather was married to Miss O'Connell, sister to the grandfather of the late Daniel O'Donnell, M.P., of Derrinane Abbey, Co. Kerry.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Aug. 17th:—

Alford, Charles Edward, Upper Helmsley, Yorkshire.
Bott, Henry Septimus, Bury, Lancashire.
James, Thomas, Aberdare.
Jolly, Robert William, Shooter's-hill, Kent.
Peake, Joseph, Coventry.

The following gentlemen passed the Primary Professional Examination on the same day:—

John Winkley Langdon and Thomas William Fagg, St. Bartholomew's Hospital; Alex. Billing Hammond, Guy's Hospital.

At the recent competitive examination for the Prizes in Materia Medica and Pharmaceutical Chemistry the successful candidates were—

1. Hutton Castle, St. Thomas's Hospital.
2. Albert Wm. Graham, St. Bartholomew's Hospital.

NAVAL MEDICAL SERVICE.—The following is a list of candidates for the Naval Medical Service who have passed the recent competitive examination held at the University of London, Burlington-gardens. The number of marks made by each candidate is placed after his name:—

H. W. D. Walsh, 3025; J. D. Henwood, 1670; T. C. Magliston, 1635; T. E. H. T. Williams, 1915; H. P. Guppy, 1875; G. W. F. Armstrong, 1857; J. J. Connell, 1822; Francis Williamson, 1685; W. M. Rae, 1675; L. H. Kellett, 1590; C. F. Newland, 1540; J. C. Dow, 1535; A. B. Wade, 1485; P. J. Barcroft, 1460; R. Murdoch, 1400; L. W. Corcoran, 1420; G. D. Twigg, 1390; J. N. Browning, 1315; G. J. Fogerty, 1315; W. J. B. Bookey, 1240.

DR. BARRINGTON CHEVALLIER has been placed on the Commission of the Peace for Ipswich.

DURING the thunderstorm last week an aerolite weighing twelve pounds, of conical shape, fell at Kilnemona, within a few miles of Ennis.

A CHEMIST living in Nottingham has been fined £5 for having infringed the Adulteration Act. The offence consisted in selling as lime-water, prescribed by a medical man, an article which was in fact ordinary tap water.

THE new Hospital at Dewsbury was formally opened on Saturday last by the Mayor, who went through the town at the head of a procession of the corporate authorities, magistrates, clergy, medical staff, and all the public bodies, with bands of music. The route was lined by hundreds of spectators, and gaily decorated with plants, flowers, and devices. After the ceremony there was a large meeting at the Theatre Royal, and in the evening illuminations and fireworks.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The number of candidates going in for the Preliminary examination will be found to be as large as on any previous occasion. The examination will be held at the University of London, Burlington-gardens, W., on Tuesday, Wednesday, and Thursday, the 12th, 13th, and 14th of September next.—The museum and library of the College will be closed, as usual, during the month of September, for the necessary repairs, dusting, and cleaning.

Medical Appointments.

ARMFELDT, E., M.A., M.R.C.S.E., has been appointed a House-Surgeon to Guy's Hospital for the month ending 30th September.

BLAND, G., L.R.C.P.I., M.R.C.S.E., has been appointed Surgeon to the Macclesfield Borough Police Force.

COATES, H., M.R.C.S.E., has been appointed House Surgeon to the West Ham, Stratford, and South Essex Dispensary, vice Carey, resigned.

COLEMAN, M. O., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Surbiton Urban Sanitary District.

COLEY, F. C., M.R.C.S.E., has been appointed a Senior Obstetric Assistant to Guy's Hospital for the month ending 30th September.

CRUMPTON, G., M.B., C.M., has been appointed House-Surgeon to the Infirmary and Dispensary, Lancaster, vice Scott, resigned.

DAVEY, Mr. R. M., has been appointed Surgeon Dentist to the Royal Infirmary for Children and Women, Waterloo-road, vice Roberts, deceased.

FINCH, A., M.R.C.S.E., has been appointed a Junior House-Physician to Guy's Hospital for the month ending 30th September.

GAY, J., F.R.C.S., has been appointed Honorary Consulting Surgeon to the Soldiers' Daughters' Home, Hampstead, vice Campbell De Morgan, deceased.

HARPER, G. S., M.R.C.S.E., L.R.C.P.L., has been appointed Resident Obstetric Assistant to St. George's Hospital, vice Lacy, resigned.

HEFFERNAN, W. K., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Killenaule Dispensary District of the Cashel Union, co. Tipperary, and Medical Attendant to the Royal Irish Constabulary, vice Morris, deceased.

JACK, R. M., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Glenmuick, Ballater, Aberdeenshire, vice Beattie, resigned.

JOHNSON, H. S., L.F.P.S.G., L.K.Q.C.P.I. & L.M., Medical Officer for the Buckfastleigh and South Brent Districts of the Totnes Union, has been appointed also Public Vaccinator, vice Kiernan, resigned.

JOHNSTON, G., M.D., M.Ch., L.M., has been appointed Surgeon to the Black Prince, West Thornley, and Inkermann Collieries, Surgeon to the Ironworks, to the Wallflower Lodge of Free Gardeners, and to the Court Campbell Lodge of Foresters at Tow Law, near Darlington, vice Reid, resigned.

JONES, P., L.R.C.P.E., L.F.P.S.G., L.S.A.L., has been appointed Assistant Medical Officer to the Grove Hall Asylum, Bow, vice Livingstone, resigned.

JONES, T., M.B., M.R.C.S.E., L.S.A.L., has been appointed Registrar to the Manchester Royal Infirmary.

LANCASTER, H. F., L.R.C.P.L., M.R.C.S.E., has been appointed a House-Physician to Guy's Hospital for the month ending 30th September.

MCCREERY, J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for No. 8 District of the Thingoe Union, Suffolk, vice Marshall, resigned.

MASON, S. B., Jun., M.B., L.R.C.S.I., has been appointed Lecturer on Midwifery and the Diseases of Women and Children at the Ledwich School of Medicine &c., Dublin, vice Ringland, deceased.

MEEHAN, N. J., L.R.C.P.Ed., L.R.C.S.I. & L.M., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Dysertmoon Dispensary District of the New Ross Union, co. Wexford, vice Mullin, appointed to the New Ross Dispensary District.

NICOLSON, D., M.D., has been appointed Deputy Medical Superintendent of the Criminal Lunatic Asylum, Broadmoor, vice Cassidy, appointed Resident Medical Superintendent of the Lancashire Lunatic Asylum, Lancaster.

PIGGOTT, E. A., L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.L., has been appointed a Surgeon in the Peninsular and Oriental Steam Navigation Company's Service.

PILKINGTON, H. O., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Post-office at Preston.

RICHMOND, C. E., M.R.C.S.E., L.S.A.L., has been appointed Junior House-Surgeon to the Manchester Royal Infirmary, vice Wartenberg.

ROSS, J., M.D., has been appointed Pathological Registrar to the Manchester Royal Infirmary, vice Jones.

SCOTT, R., M.B., C.M., has been appointed House-Surgeon to the Halifax Infirmary and Dispensary.

SIMON, A. C., M.R.C.S., L.S.A., L.R.C.P.E., has been appointed Assistant House-Surgeon to the Halifax Infirmary and Dispensary.

SMITH, H. N., L.R.C.P.L., M.R.C.S.E., has been appointed a Junior House-Surgeon to Guy's Hospital for the month ending 30th September.

SPARROW, W. W. B., M.R.C.S.E., has been appointed Medical Officer for the No. 5 or Nechells District of the Aston Union, Warwickshire, vice Weddell, resigned, at £60 per annum and fees.

SYMONDS, C. J., M.R.C.S.E., has been appointed a House-Physician to Guy's Hospital for the month ending 30th September.

THORBURN, R. T., L.F.P.S.G., has been appointed Medical Officer to the Cornsilloch, Milburn, and Longlea Collieries, Larkhall, Lanarkshire, vice McKenzie, resigned.

TUTHILL, F., B.A., M.B., L.R.C.S.I., L.M.R.C.S.I., has been appointed Surgeon to the East India Railway Company, Toondla District, N.W.P.

WARTENBERG, V. A., M.R.C.S.E., has been appointed Senior House-Surgeon to the Manchester Royal Infirmary, vice Smith, whose term of office has expired.

WATSON, J. A., L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Chudleigh District of the Newton Abbot Union, vice Massiah, resigned.

WEISS, Mr. H. F., has been appointed a House-Surgeon to St. Bartholomew's Hospital.

WILLIAMSON, G. E., M.R.C.S.E., L.S.A.L., has been appointed Senior House-Surgeon to the Newcastle-on-Tyne Infirmary, vice Bentson, resigned.

Births, Marriages, and Deaths.

BIRTHS.

ALLEN.—On the 24th ult., at Sehore, Central India, the wife of W. E. Allen, F.R.C.S.E., Surgeon-Major Bhopal Battalion, and Political Agency, of a daughter.

BOSWORTH.—On the 17th inst., at Sutton, Surrey, the wife of J. R. Bosworth, M.R.C.S.E., of a daughter.

BUTTON.—On the 31st May, at Clyde, Otago, New Zealand, the wife of H. G. Button, M.R.C.S.E., of a son.

FALLS.—On the 17th inst., at Marden Ash, Bournemouth, the wife of William Stewart Falls, M.D., of a daughter.

GREENHALGH.—On the 18th inst., at Heaton Norris, the wife of Thomas Greenhalgh, L.K.Q.C.P.I., of a son.

MCENERY.—On the 19th inst., at Cerne Abbas, the wife of William McEnery, L.K.Q.C.P.I., of a son.

MCEWAN.—On the 15th inst., at Southsea, the wife of D. McEwan, M.D., R.N., of a son.

MARCH.—On the 20th inst., at Tennyson-place, Bradford, Yorkshire, the wife of Frederick K. March, L.R.C.P.E., of a son.

NASON.—On the 27th ult., at Ashford, Kent, the wife of C. A. Nason, Surgeon, of twin sons.

THOMPSON.—On the 21st inst., at Cranley-place, South Kensington, the wife of Reginald E. Thompson, M.D., of a son.

TOWNE.—On the 18th inst., at The Crescent, Kingsland, the wife of Alexander Towne, Jun., M.R.C.S.E., of a son.

MARRIAGES.

HUTCHESON—JOSEPH.—On the 17th inst., at Llwyngwril Parish Church, by the Rev. A. G. Edwards, Warden of Llandovery College, assisted by the Rev. J. E. Davies, M.A., Rector of Llwyngwril, John Davis Hutcheson, M.B., of Aberdare, to Marie Louise, daughter of Thomas Joseph, Esq., J.P., of The Botirills and Ty Draw, Glamorganshire.

REID—DODSON.—On the 22nd inst., at St. John's, Horsleydown, by the Rev. Malcolm MacColl, Matthew Reid, M.R.C.P.E., to Alice Blanche, eldest daughter of Henry Dodson, Esq., Examiner of County Courts.

DEATHS.

EDWARDS.—On the 18th inst., at Wivelscombe, Andrew Francis Edwards, M.D., aged 69.

FRASER.—On the 6th inst., at Edinburgh, James Cunningham Fraser, M.D., aged 40.

HUME.—On the 12th ult., on his passage home from Jamaica, Henry Hume, Esq., M.D., M.R., C.S., L.A.C., son of the late Mr. John Hume, of Newcastle-on-Tyne, aged 35.

HUNTER.—On the 9th inst., at Stanley, Durham, John Gilland Hunter, L.R.C.P.Ed., aged 33.

JAMES.—On the 12th inst., at Bermondsey, John James, Surgeon, aged 43.

MACAULAY.—On the 13th inst., at Gillespie-crescent, Glasgow, Dr. William Macaulay, late of Demerara.

WATSON.—On the 12th inst., at Chester, George Bott Churchill Watson, M.D., aged 65.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

TRANSFUSION OF BLOOD IN THE LAST STAGES OF PHTHISIS.

WE recounted a few weeks back an instance of transfusion of blood in a very advanced case of phthisis, in which a remarkably good result was obtained. As the utility of the operation generally has been the subject of much discussion, it is as well to give the adverse side of the question. Dr. Howe, Clinical Professor of Surgery in the University of New York, lately transfused in three cases of tubercular lung disease with negative results, a temporary amelioration being observed in only one case. The conclusions which Dr. Howe arrives at from observation of these cases are briefly as follows:—1. The operation of transfusion in phthisis is peculiarly dangerous, because with a weakened heart there is obstruction to the circulation in the lungs and deficient aeration of the blood, which both tend to overcome the heart's action, and produce syncope. 2. The introduction of healthy blood temporarily improves the condition of the patient in much the same manner as alcohol and quinine do when taken into the system. 3. The transfusion of blood in advanced phthisis is scarcely a justifiable operation, because the temporary benefit obtained does not by any means compensate for the risk of the operation.

Mr. Lewis Hill's letter on Arsenical Wall-papers will appear next week.

ANTISEPTIC PHARMACY.

To the Editor of THE LANCET.

SIR,—The difficulty of preserving solution of tartarated antimony in water is well known. Rectified spirit will not do it, and carbolic acid is inadmisible for medicinal solutions on account of its odour and taste being disagreeable, even when very freely diluted, to most people. Equal volumes of glycerine and water (hot) answers very well, and the solution may be as strong as one grain in one fluid drachm. In the early part of the year 1872 I published a paper in THE LANCET on the Use of Diluted Glycerine as a Solvent and Preservative of certain materies medica. Latterly I have used chloral water (a quarter of an ounce of hydrate in one pint—that is, fully five grains in one fluid ounce) in place of diluted glycerine, and I desire to call attention to the following formulæ as specimens of its successful and useful applications in this respect. Solution of antimony: Dissolve forty grains of tartarated antimony in twenty fluid ounces of hot water, and when cold add a quarter of an ounce of chloral hydrate. Solution of morphia may be prepared in the same way and of the same strength from the muriate, without acid. When these solutions are diluted in the ordinary way for medicinal administration, the chloral becomes as insignificant as the alcohol in a strong tincture; and if this were not so, even less chloral than that named might be used, or the quantity of morphia and antimony might be doubled without inconvenience. The same proportion of chloral hydrate (a quarter of an ounce in one pint) may be used for the preservation of strong liquid extracts in place of rectified spirit. The following preparations are self-preservative and of convenient strength:—Solution of chloral: One ounce of hydrate in a quarter of a pint of water (very nearly eleven grains in one fluid drachm—that is, fully one scruple in a quarter fluid ounce). Syrup of chloral: One ounce of hydrate (or a quarter of a pint of the preceding solution), ten ounces of sugar, and half a fluid ounce of strong tincture of ginger, with sufficient water to make up one pint. This preparation contains sufficient sugar as a demulcent, and is not inconveniently viscid, as it would be were it necessary to employ a larger quantity as a preservative. Diluted with an equal volume of water, this syrup forms an agreeable chloral draught (fully one scruple in two fluid ounces). This preparation is more convenient than the stronger syrups of the shops, which necessarily require more sugar to render them sufficiently demulcent when diluted, and are therefore inconveniently viscid. In connexion with these formulæ, the following may be mentioned as exceedingly useful for children's mixture:—Liq. dulcis fusc.: Sugar, ten ounces; chloroform and burnt sugar, of each one fluid drachm; water sufficient to make up one fluid pint; dissolve by brisk agitation. Equal volumes of this syrup and water form an agreeable diluent or vehicle for solution of antimony &c. for children. In giving these formulæ I have followed the example of the B.P. in using common weights where practicable, expressing the strength in grains or scruples. I may mention also that for a pint preparation the bottle should hold a pint and a quarter, and be marked with a three-edged file at one pint; the ingredients and the stopper are then to be introduced, and solution effected by simple agitation. The bottles should be of common light green glass, and have thin lips. After many experiments, I have found that ginger is the best corrective of the pungency of chloral. I have tried bitter orange-peel, lemon-peel, saffron, almond, vanilla, tolu, anise, and camphor.

In conclusion, I may just draw attention to the fact that chloralis hydras is printed chlorsl hydras in the appendix to the B.P.

I remain, Sir, yours truly,

Shrewsbury, Aug. 18th, 1876. W. J. MARSH, M.R.C.S.

Mr. T. Cawley Kaper.—There was an irregularity in seeing the patient of another medical man; but it was neither intentional nor unkind, and it has been apologised for. Under these circumstances it should be considered to be disposed of.

Æsculapius ought to decline to meet B., and explain his reasons for doing so.

THE EDINBURGH COLLEGE OF PHYSICIANS AND THE TITLE OF DOCTOR.

To the Editor of THE LANCET.

SIR,—I am glad to say that the College of Physicians of Edinburgh are addressing their annual lists of licentiates thus: "T. W. Hill, Esq., L.R.C.P.E., West Cromwell-road, South Kensington, London"—sinking the style of "doctor" *in toto*. Therefore I think now it is pretty surely determined they do not style or address us "doctor."

Yours truly,

August 21st, 1876. T. WOOD HILL, L.R.C.P. Edin.

FENUGREEK.

A RECENT number of the *Gardeners' Chronicle* contains a good description of fenugreek, a drug whose therapeutic value we are inclined to think has never received adequate appreciation. It might fairly be imagined that its administration would prove beneficial in certain wasting diseases. At all events it is given in many parts of the world to produce fatness, a result which it accomplishes with marked success. Readers of Dr. Leared's "Morocco and the Moors," recently reviewed in our columns, may remember that the seeds are taken by females in Morocco to induce *embonpoint*. The genus to which the fenugreek belongs is pretty widely distributed in Southern Europe, Northern, Central, and Southern Africa, Western and Central Asia, while it is said that one species is found in Australia. Fenugreek claims a history of great antiquity, the plant being much valued by the ancients both for food and medicine, and being often referred to by Hippocrates and Pliny, the latter of whom enters very fully into its medicinal virtues. Woodville, in his "Medical Botany," refers to the plant as a native of Montpellier. Southern France and Germany furnished this country with its supplies of fenugreek-seeds at the time Woodville wrote. The plant is now largely cultivated in India, Morocco, &c. In Alexandria the seeds are eaten as an article of food during the germinating stage. In India the fresh plants are eaten as green vegetable; but the seeds are the most important product, as proved by recent statistics, which show that the quantity imported from Said to Bombay during the year 1872-3 amounted to 13,646 cwt.; from Bombay also were shipped in the same year 9655 cwt., of which quantity only 100 cwt. were sent to the United Kingdom.

CASE OF STRANGULATED HERNIA; HERNIOTOMY; RECOVERY.

To the Editor of THE LANCET.

SIR,—On the morning of the 14th instant I was called to see a man who had a very large inguinal scrotal hernia, which had come down fifteen hours previously (left side). On inquiry I found it was of several years' standing, had come down twice before, but got it up himself without much trouble. Had vomiting all night, and in much pain. I directly put on the taxis for twenty minutes, but without success, the patient placed in the usual position. Ice was at once applied, having raised the nates considerably. I left him in this position for six hours, visiting him in the meantime. In three hours afterwards, finding no success, I examined his heart, and put him under the influence of chloroform. Manipulation was again tried, but without any beneficial result. During all this time there was no bad symptom. He quickly became conscious after a lapse of twenty-eight minutes from the first administration of the chloroform. In four hours to have thirty minims of tincture of opium, to be repeated if in pain, and to be kept in the horizontal position. I visited him at 7 A.M. next morning. He had taken the second dose of laudanum. Tumour enlarged and very tender; stercoraceous vomiting occurring at intervals; bowels not relieved for three days. It was now evident an operation was required. I accordingly obtained the assistance of Dr. Meredith, of Maidstone. We agreed as to the operation, and now for the second time put him under chloroform, forty-four hours from the time of its coming down. The taxis was again applied for a few minutes ineffectually. I then made an incision in the long axis of the tumour, cutting through the integument, when layer after layer was carefully divided without any trouble, save ligaturing a few superficial vessels. On reaching the sac we agreed to open it, and found it to consist of omentum and intestine, the latter much congested, but free from any gangrenous spots. Both we returned, stitched the wound, and applied a bandage. In a few minutes he was quite conscious, and expressed himself, to use his own words, "All right." Carbolic-acid lotion to be constantly applied, giving instructions to have thirty minims of tincture of opium in two hours. Saw him at 8 P.M. Comparatively free from pain, and very hungry. Ordered a tablespoonful of brandy and beef-tea every four hours; tincture of opium to be repeated at 7 A.M. Saw him next morning. He had six hours' sleep. Brandy and beef-tea as before; to continue the tincture of opium according to circumstances, and ordered him castor oil next day, bowels acting very well. Micturition difficult. To have a draught containing the following:—Tincture of cantharides, two minims; tincture of henbane, forty minims; and liquor potassæ, fifteen minims; every two hours until relieved. Next morning he was much relieved, and entirely free from pain. Urine passed without difficulty. Everything went on satisfactorily until the tenth day, when I was sent for to see him. I found the bowel had burst, as he said, with quite an explosion. There was no doubt a complete artificial anus was established, and the contents of the bowels freely showing themselves. I prescribed injection of carbolic acid every three hours; discharge somewhat diminished; wound healing pretty well. Matters went on as usual for two weeks; wound gradually healing; discharge not improved. The actual cautery (Corrigan's button) applied every day for five days. This had the desired effect. All discharge now ceased; wound quite healed; patient gone out for a holiday, and quite as well as before the operation, five weeks ago.

I am, Sir, yours truly,

Chart Sutton, Aug. 18th, 1876. J. N. BERDIN, L.R.C.S.I., &c.

ARTISANS' DWELLINGS ACT.

IN a report of the sanitary condition of the Whitechapel district for the last quarter, Mr. John Liddle states that since the above-named Act came into operation he has made three official representations to the local authority respecting the unhealthiness of certain areas within the district. The total area embraced in the three schemes is a little over sixteen acres. The number of houses proposed to be taken down is 948, and the number of people to be displaced is 8072. Inquiry into the causes of death in the majority of the confined courts of the district revealed the fact that the mortality from scrofulous and allied diseases is, in relation to the total mortality, as high as 33·8 per cent., which sufficiently indicates the unhealthiness of the locality, while the evidence of the medical practitioners who visit these areas demonstrates the need of wholesale demolition.

Mr. F. B. Pullin.—The papers were not kept.

DIAGNOSIS OF PARALYSIS.

A MAN residing in East Wells, about a mile and a quarter from the County Asylum, had been employed at that institution some six or seven years as assistant to the engineer. He had been absent from work a while in ill health and under medical treatment. He returned, looking emaciated, pale, and weak. He had been troubled with cough during the last winter, and was subject to periodic attacks of gout. Less than a fortnight after resuming his labour, Dr. Medlicott, the medical superintendent of the Somerset Asylum, reports as follows:—

"The assistant medical officer of this asylum (B. L. Dutt, Esq., recently house-physician in Dr. Wood Smith's wards in the Glasgow Royal Infirmary) reported to me lately a workman suddenly taken ill with paralysis. The history is that of an intemperate man aged fifty-nine, gouty, but badly nourished. He falls down suddenly in the blacksmith's shop, but is only unconscious for about two minutes. When seen by Mr. Dutt he was quite conscious, and there was partial loss of motor power, although none of sensitive power, as proved by pinching the skin. There was no paralysis of the tongue, for he detailed minutely his illness from gout three weeks previously. There was no difficulty in deglutition, as he swallowed some tea, which he also had asked for. His pulse was weak and irregular, and his face deadly pale; there was, however, no difficulty in respiration. Being engaged with a gentleman at the time round the wards, I could not see the case; but on Mr. Dutt stating that the man could stand the journey home (cold vinegar-and-water had meantime been applied to his head), I ordered him to be taken to his own house in our spring waggon, which was partly filled with some fresh straw, a couple of horse-rugs, two persons supporting the man, whilst they started off at a walking pace, about 5 P.M. On reaching home, brandy, I hear, is immediately given him. Later on Mr. Risden is called in, and eventually he dies at 1 A.M. Mr. Dutt is asked for a certificate of the cause of death. This he very properly declined to give; Mr. Risden also refused. The result is an inquest."

The coroner, a medical man, considers the evidence of Mr. Risden, the practitioner called in after the deceased had been removed to his home, sufficient. That gentleman testifies that the cause of death was extravasation of blood on or in the brain. No post-mortem examination is deemed necessary. Dr. Medlicott is not called to give evidence, but the jury return the following verdict, which appears in the local papers:—

"The jury are of opinion that there was great neglect on the part of the doctors of the asylum, especially on the part of Dr. Medlicott, after his having been made fully acquainted by Dr. Dutt of the nature of the case, in ordering his sudden removal in so rude a conveyance, and they have no doubt that the removal accelerated his death."

Dr. Medlicott complains, in a letter to the editor of the journal reporting the case, of the censure passed upon him in his absence. The coroner replies:—

"THE LATE INQUEST.

"*To the Editor of the Wells Journal.*

"SIR,—I am not in the habit of answering letters containing strictures on inquests over which I have presided; but Dr. Medlicott's letter contains such anomalies, I feel bound in justice to myself to take cognisance of it. In the first place, I beg to disclaim having had anything to do with the quotation alluded to by Dr. Medlicott as being the expression of the jury, contained in your journal of the 3rd inst., this opinion having been drawn up after I left the Court. 1st. Dr. Medlicott considers he ought to have been called to give evidence. Now, the evidence of Dr. Dutt proves that Dr. Medlicott never saw the case; he simply stated as a matter of fact that he reported the case to Dr. Medlicott, who having heard the report of Bendall's condition ordered, without seeing him, his immediate removal home. Under such circumstances the evidence that Dr. Medlicott could give was simply *nil* as to the cause of death. With regard to the medical facts of the case, Dr. Dutt stated Bendall was suffering from paralysis when he was called to him; but in answer to me he stated most emphatically that he did not stay to ascertain the cause of this paralysis; and without arrogating to myself to be wiser in my generation than my medical *confrères*, I do say that as a rule the causes of paralysis affecting one side of the body are not so difficult to decide as Dr. Medlicott would make the public believe, and I must unhesitatingly say that different causes require different treatment. Mr. Risden stated most emphatically that the cause of Bendall's paralysis was due to extravasation of blood, and if such was the case, active treatment was especially demanded; indeed the sequel of the case proves it more strongly than any words I can use. I need only add that the verdict on my inquisition was 'Apoplexy,' which I advised the jury to return on the evidence of Mr. Risden, which was so unequivocal as to make a post-mortem totally unnecessary.—Yours faithfully,

"SAMUEL CRADDOCK,

"Shepton Mallet, 11th August." "Coroner for North Somerset.

Our opinion is requested. It may be given briefly as follows:—1. The alleged verdict of the jury was not a verdict at all. The coroner had left the room, the Court was closed, and the opinion expressed has no more legal value than the judgment of any twelve men taken from the audience would have had. The reporter who communicated this paragraph as the finding of the jury either committed a grave error or was strangely misled. 2. The cause of death could not possibly be known in a case of the nature described without a post-mortem examination, and we cannot help thinking Mr. Risden must have expressed, or intended to express, a general opinion rather than pledge himself to a statement of fact. No medical practitioner would seriously pretend to do more than guess the pathological condition under the circumstances detailed. 3. We see nothing in the treatment as it is described by Dr. Medlicott to justify even informal censure. Mr. Dutt was a legally qualified medical man; he thought the removal practicable and safe, and it seems to have been carried out with due caution. It is, of course, always desirable to keep a patient so attacked as quiet as possible, more particularly when a suspicion of weak arteries exists, as would be the case in presence of the gouty diathesis; but assuming the patient was in a condition to be removed to his home, the removal was conducted with consideration and humanity.

SULPHUR FIRES IN EPIDEMICS OF CHOLERA.

IN the second edition of a pamphlet on the subject of burning sulphur fires in epidemics of cholera, Surgeon-Major Dr. Tuson, of the Indian Medical Service, gives several illustrative examples from his own experience of the efficacy of this method of procedure. He states that he has on four occasions observed the marked effect of sulphur fires in arresting the progress of the disease. Attention to certain points is considered of consequence. All the fires should be lighted at one and the same time, and the sulphur sprinkled on them simultaneously. The piles of wood should be good large heaps, so as to last several hours; they should be placed at distances of from forty to fifty yards to surround a village, particularly to windward of it, and in places where cholera has its habitat. The fires should be kept up for twenty-four or forty-eight hours at least. *En passant*, we should be glad to ascertain whether a solution of sulphurous acid, which has been found highly efficacious in choleraic diarrhœa in this country, has ever been tried in India for the same purpose.

A Subscriber.—Try the application of a strong solution of iodine over the affected joint.

THE BALHAM MYSTERY.

To the Editor of THE LANCET.

SIR,—The death of Mr. C. Bravo, according to the finding of the jury, was caused by poison not inadvertently or suicidally taken, but administered by an individual or individuals purposely for terminating his life. The person or persons guilty, evading detection, may, encouraged by their success, try further experiments by tartar emetic, or something else, on others. The ease with which poisonous drugs can be procured by individuals who have no tenable excuse for getting them in their possession is quite unjustifiable, and anything but assuring to the public. The purchaser may be an ignorant, but well-disposed (or the reverse), groom who, without authority from his master, gets tartrate of antimony by the ounce, or in such quantities as his fancy may decide, to treat the horses under his charge. Should he be in the mood to try the effect of his poisons on human beings as well as on horses, has he not the material *ad libitum* at hand? Or, should anyone else feel disposed to effect the riddance of someone obnoxious, the stable may be searched for the means of attaining that end without the risk, if it be a risk, of going to the druggist.

I do not know whether it is a common thing for grooms and others connected with stables to use and procure tartar emetic when they feel inclined, but a phial has been put in my hands this morning that was left here by a servant in the employment of a gentleman who had shooting here some years ago. The phial contained seventy-five grains of tartrate of antimony, and was labelled tartar emetic simply, without anything to indicate its poisonous qualities. When the knight of the whip took his departure he left this souvenir behind, as if it were as harmless as so many grains of magnesia. That such persons should be allowed to meddle so freely with any drugs so potent for harm is an error that legislation ought to rectify by making it illegal for anyone, not entitled to do so, to have poisons in his possession.

I am, Sir, yours respectfully,

ALEX. MACLEAN, L.R.C.P. ED.

Mearig, Uig, Lewis, Scotland, August 18th, 1876.

To the Editor of THE LANCET.

SIR,—I should like to offer two suggestions as to the manner of Mr. Bravo's swallowing the antimony which killed him. I have the notes of a case referred to me in which a child had died after having some brimstone and treacle. I found tartar emetic in the brimstone. The two substances had been kept in drawers, one over the other, the sulphur being in the lower one, and the poison had come through a hole in the bottom of the drawer, and thus became mixed with the sulphur. Mr. B. took the laudanum, taking the mustard after as an emetic, and, supposing an accidental mixture of the same kind, the poison would be introduced without anyone's knowledge or even suspicion. Secondly, it is well known that the absinthe of the French is often adulterated with antimony chloride to produce the milky appearance when mixed with water. May not the poison have been introduced by the *petit verre*?

If you think these suggestions of sufficient worth to bear reproduction in the pages of your journal, it will be a pleasure to me.

Yours truly,

Aug. 22nd, 1876. STIBIUM.

THE POPULATION OF FRANCE.

A CORRESPONDENT of a French contemporary deals energetically with what should be a pressing question with French statesmen—the comparative depopulation of the country. After showing that France takes 334 years to double her population, while the same effect is worked in England in 63 years, he proceeds to enumerate what he considers are the causes of this degeneracy. Chief among them he places the remarkable and unquestioned sterility of the French people, while compulsory subdivision of heritages is credited with working a great amount of evil.

IMPREGNATION UNDER DIFFICULTIES.

To the Editor of THE LANCET.

SIR,—The case of pregnancy with imperforate hymen, related in your columns by Mr. E. J. Burgess, reminds me of a somewhat similar case related by Mr. J. R. Lane some years ago (*vide* THE LANCET for 1864, vol. i., p. 207), in which pregnancy took place after complete closure of the os uteri by operation. Mr. Lane says: "I am inclined to think that a capillary channel may have existed along the track of the wire sutures, one of which had disappeared and escaped detection when the others were removed, and was not taken away till a considerable time afterwards. Should this supposition be correct, the fact is a curious one, as showing *how minute a communication may suffice for impregnation.*" (The italics are mine.) But, without doubt, the most remarkable journey ever performed by spermatozoa was that related in an American medical journal and ridiculed in THE LANCET for 1857, vol. i., p. 35. In that singular case they were said to be carried safely to their destination by means of a rifle bullet, the result being "a fine boy"!

Your obedient servant,

Penzance, Aug. 20th, 1876. A. B.

SYPHILISATION *v.* CIVILISATION.

PROF. W. BOECK would almost make these terms synonymous, or at least would so far connect them as the part is related to the whole, if we are to believe his lately published "Erfahrungen über Syphilis" (Stuttgart, Enke). To this praise, however, we think him fairly entitled—to wit, that his therapeutic method of dealing with syphilis has immensely enlightened our views as to the nature of the poison which underlies it. No one who wishes to go thoroughly into this department of pathology can dispense with the professor's book. We would especially recommend the representatives of the "Contagious Diseases' Interest" to peruse the chapter on Hereditary Syphilis. While the effects of the poison, he says, may descend far down in the generations succeeding the syphilitic progeniture, these effects do not appear under the form of syphilis proper, but of the "scrofuloses" and rachitis. Its influence is as disastrous as these forms are protean. The eloquence and logical force with which this is demonstrated are characteristic of the style and method of the treatise throughout.

Dr. Grattan is thanked for a copy of his communication to the College of Physicians of Ireland, and other documents bearing on the same subject; but we regret that want of space precludes us from publishing them.

Mr. Vertue Edwards is thanked.

SINGULAR DOUBLE MONSTER.

To the Editor of THE LANCET.

SIR,—I was called hurriedly on the evening of August 14th to a young woman in her second pregnancy. I was informed she was in the seventh month, and from having had a fall about a week ago, she attributed her premature labour thereto. I found the patient in pretty strong pains; the water had been discharged at eleven o'clock the previous night, and she had had pains regularly since that time. On making an examination, I found the os dilatable, with a hand and foot presenting. I traced the same up as far as possible, and found a small cranium, and concluded to make traction, which brought the attached body of a small monster to view. On further traction I succeeded in bringing to light a larger and similar monster. The two bodies were distinct, and attached firmly to each other at the vertex of the cranium, the crania at this point being joined as if one. The smaller body had rudimentary eyes, no nose, a mouth, two arms, two twisted legs, and the pelvic portion of the body terminated in a bloody mass, so that no sex could be distinguished. The larger body had a complete face, two arms, and the pelvic portion of the body terminated in a rounded extremity, like a bag full of fluid, which might have been taken, had it presented at the os, for a hydrocephalic head. On each side of this bag-like extremity was placed a rudimentary leg, about the size of a frog's or less. It is the most unique monster, so to speak, I ever have seen in my thirty years' practice. The monster lived five minutes.

I have preserved the monster, and shall be happy to present it to the first applicant who may be curious in such matters, and may wish to make a preparation for illustration either for lectures or museum.

Yours &c.,

Wandsworth-road, August, 1876. A. C. TWEEDIE.

Hollus librorum, (Liverpool.)—Yes; medical men have to read, if not invariably to buy, far more books to keep abreast of the science of their profession than the lawyer or the divine. These functionaries appeal to established precedent or canon; the bases of medicine are being modified every day. A quarter of a century, says Humboldt, suffices to make a scientific work obsolete; "for," adds the great author of the Cosmos, "such books deal with the 'actual.' All things that depend on the growth of experience, on the revolutions to which the increasing perfection of instruments and the constantly enlarging sphere of observation subject physical theories, tend quickly to grow old. Writings that take root in the profundities of thought, of sentiment, or of the creative imagination, are read with a pleasure always the same. Literary *chefs-d'œuvre* are ever the delight of men of letters; scientific *chefs-d'œuvre* are historical pieces which only antiquaries care to consult." In other words, scientific "classics" do not exist.

Mr. R. Richardson (Rhayader) is thanked. There are no fresh features in the case detailed.

SPONTANEOUS COMBUSTION.

THE following are the conclusions at which the Royal Commission on the Spontaneous Combustion of Coal have arrived:—

"That certain descriptions of coal are intrinsically dangerous for shipment on long voyages. That the breakage of coal in its transport from the pit to the ship's hold, the shipment of pyritic coal in a wet condition, and especially ventilation through the body of coal cargoes, conduce to spontaneous combustion, even though the coal may not be unfit for conveyance on long voyages. That spontaneous combustion in coal cargoes would be less frequent if regard were had by shipowners and underwriters to these facts. That when coal is being carried on long voyages, the temperature in the various portions of the cargo should be tested periodically by thermometer, and registered in the log. That, with a view to guard against explosion, free and continuous egress to the open air, independently of the hatchway, should be provided for the explosive gases by means of a system of surface ventilation which would be effective in all circumstances of weather. That, in order to make known the descriptions of coal liable to combustion, the inspector of mines should be instructed to hold inquiry into all cases of spontaneous combustion occurring in cargoes of coal taken from their respective districts, exporters being required always to record on their specifications the denomination of the coal forming the cargo. That no additional legislation with reference to the conveyance of coal by sea is required unless for the purpose of giving effect to our proposals with regard to the inquiries by inspectors of mines, and to the fuller specification of coal entered outward at Her Majesty's customs."

FATTY DEGENERATION OF THE PLACENTA AS A CAUSE OF DEATH IN THE FŒTUS.

AT a late meeting of the New York Academy of Medicine a paper on this subject was read by Dr. Leale. Fatty degeneration was regarded as the result of a defect, and not disease, of the nutrient process. Such defect might be developed in connexion with syphilis, phthisis, scrofula, and other conditions, and give rise secondarily to fatty degeneration. Records of cases were given in which the following changes had been found:—Fatty degeneration coincident with syphilitic sperm, the mother being healthy; simple fatty degeneration following placentitis, caused by a blow on the abdomen; fibrous deposits in the placenta in a mother who had cavities in both lungs; syphilitic fatty change in a case in which several miscarriages had occurred within six years; &c.

HEAT IN INDIA.

EUROPEANS and natives in India seem to have had a trying time of late. Numerous cases of fatal heat apoplexy are reported from different parts of the country. As instances of the great heat experienced, it is stated that in a mess-room during dinner (with presumably punkahs in full swing), the thermometer showed a temperature of 102° F. long after sunset; while in the wards of a hospital it registered over 100° for several days, scarcely falling at night. In the Punjab the troops are suffering severely, even on elevated stations. At Nowshera, amongst a very small European garrison, there were six deaths from sunstroke.

***G. P. R.*—We are not aware of any decision having been given on the matter. Our correspondent would do wisely to avoid litigation if possible, at least for the present.**

We have received *Col. Somerset Grove's* communication, which is, however, scarcely interesting enough for our columns.

***W. J. S.*—Messrs. Churchill.**

***Observer* is thanked for his communication.**

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Brazier, Aberdeen; Dr. Brown-Séquard; Mr. J. Gay, London; Mr. Nason, Ashford; Mr. Ward, Eastry; Mr. Pullen, Sidmouth; Col. Grove, Morpeth; Mr. Watson, Chudleigh; Mr. Tathill, Toondla, India; Mr. Franklin, Leicester; Dr. Hamilton, Liverpool; Dr. Piggott, London; Dr. Garstang, Blackburn; Mr. Etheridge, Teignmouth; Mr. Balmforth, Ardwick; Mr. Marsh, Shrewsbury; Dr. Parsons, Westminster; Mr. Kershaw, London; Mr. Bredin, Chart Sutton; Mr. Harper, London; Mr. Beatson, Ardkinglas; Mr. Caddy, Liverpool; Messrs. Salt and Son, Birmingham; Mr. Edwards, Shottisham; Dr. Gramshaw, Kinkley; Mr. Melburn, London; Dr. MacKenna, London; Mr. Shoppee, Kentish-town; Dr. Carter, Wells; Mr. Woodcock, Bradford; Dr. Dowse, Highgate; Mr. Quinton, Newark; Dr. Jones, Hulme; Mr. Hay, Wolverhampton; Mr. Wellmore, Stockbridge; Dr. Bodine, New Jersey, U.S.A.; Dr. Fairbank, Doncaster; Mr. Ingpen, Putney: Messrs. Bernard, Leith; Mr. Gilruth, Edinburgh; Mr. Hordley, Stoke-on-Trent; Mr. Hill, London; Dr. Blane, Bombay; Dr. Mulvany, Oudh; Mr. Truman, Nottingham; Mr. Wilmot, London; Dr. Cory, Buckhurst Hill; Dr. Atkinson, London; Mr. Sutherland, Portland; Mr. Bramwell, Newcastle-on-Tyne; Mr. Storey, Dublin; Mr. Jones, Bow; Mr. Richardson, Rhayader; Mr. Napier, London; Mr. Gibson, Halifax; Mr. Scriven, Lahore; Mr. Mulligan, Newark, U.S.A.; Dr. Cowen, Perth; Mr. Williams, Plasgelli; Dr. Johnston, Tow Law; Mr. Livesey, London; Mr. Alford, Hampstead; Dr. Dickson, London; Dr. Goodchild, Leamington; Dr. Mackintosh, Chesterfield; Mr. Coleman, Surbiton; Messrs. Tinling and Co., Liverpool; Mr. Merryweather, Guisborough; Dr. Campbell Black, Glasgow; Mr. W. Low, Fell; Mr. Reid, Stafford; Dr. Williams, Llandovery Mr. Purcell, Cheshire; Mr. Finch, Leicester; Mr. Howard, Norfolk; Dr. Moore, Lancaster; Dr. Wood, Bromsgrove; Dr. Maclean, Lewes; Dr. Lupton, Stratford-on-Avon; Mr. Brown, London; Mr. Haviland; The Secretary of the City of London Hospital for Chest Diseases; Observer; Æsculapius; A. B.; W. J. S.; X. Y. Z.; M.D., Newcastle-on-Tyne; C. C. M., Romsey; A Subscriber; A. B.; Stibium; L.R.C.P.; Bodli, Leeds; Proboscis; House-Surgeon, Macclesfield; C. T. M., Portsmouth; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Thomas, Fourcrosses; Mr. Matthews, Rhymney; Mr. Eberle, Easingwold; Dr. Clark, Huddersfield; Mr. Young, Bridgwater; Dr. Hutcheson, Aberdare; Mr. Sammer, Leeds; Dr. Walker, Hanley; Dr. March, Bradford; Mr. Clarke, Dalton-in-Furness; Messrs. Lee and Nightingale, Liverpool; Dr. Hawkes, Alton; Mr. Thin, Edinburgh; Dr. Macnab, Bury St. Edmunds; Dr. Paine, Stroud; Mr. Newton, Sheffield; Mr. Palmer, Loughborough; Mr. Barratt, Torquay; Felix; F. W. T., Clifton; Medicus; R. J.; Q. X. Z., Bristol; W. S., Newport; R. S., Rotherham; Edio.; M.D., Beaufort; Silverpen, London; A. T., Perth; R. P., Manchester; M.R.C.S., Chard; Medicus, Leicester; C. P. B. C., Hull; X. Y. Z., Fulton; Fides, Battersea; D. L. J., Tiverton; S., Oundle; E., Highfield; Examiner, Lewisham; W. E. D., Market Overton; H. C., Burton-on-Trent; Dr. G.; Delta, Liverpool.

***Cork Constitution, East London Observer, Morning Herald, Newcastle Chronicle, Manchester Guardian, Liverpool Post, Surrey Advertiser, Record, Metropolitan, Western Morning News, Shrewsbury Chronicle, Nottingham Guardian, Essex Standard, Wrexham Guardian,* and *Birmingham Daily Post* have been received.**

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, AUG. 24TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp	Rain-fall.	Remarks at 8 A.M.
Aug. 18	29·95	E.	66	72	88	73	63	...	Raining
„ 19	29·93	E.	66	72	96	76	64	0·28	Cloudy
„ 20	29·73	E.	64	66	74	72	63	0·32	Raining
„ 21	29·90	S.E.	62	64	112	79	60	0·11	Overcast
„ 22	29·80	W.	62	64	115	78	59	...	Overcast
„ 23	29·86	N.	51	52	102	70	52	...	Fine
„ 24	29·87	N.	54	59	...	...	53	...	Fine

Medical Diary for the ensuing Week.

Monday, Aug. 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M., each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 3 P.M.

Tuesday, Aug. 29.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 30.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Aug. 31.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 1.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 2.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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